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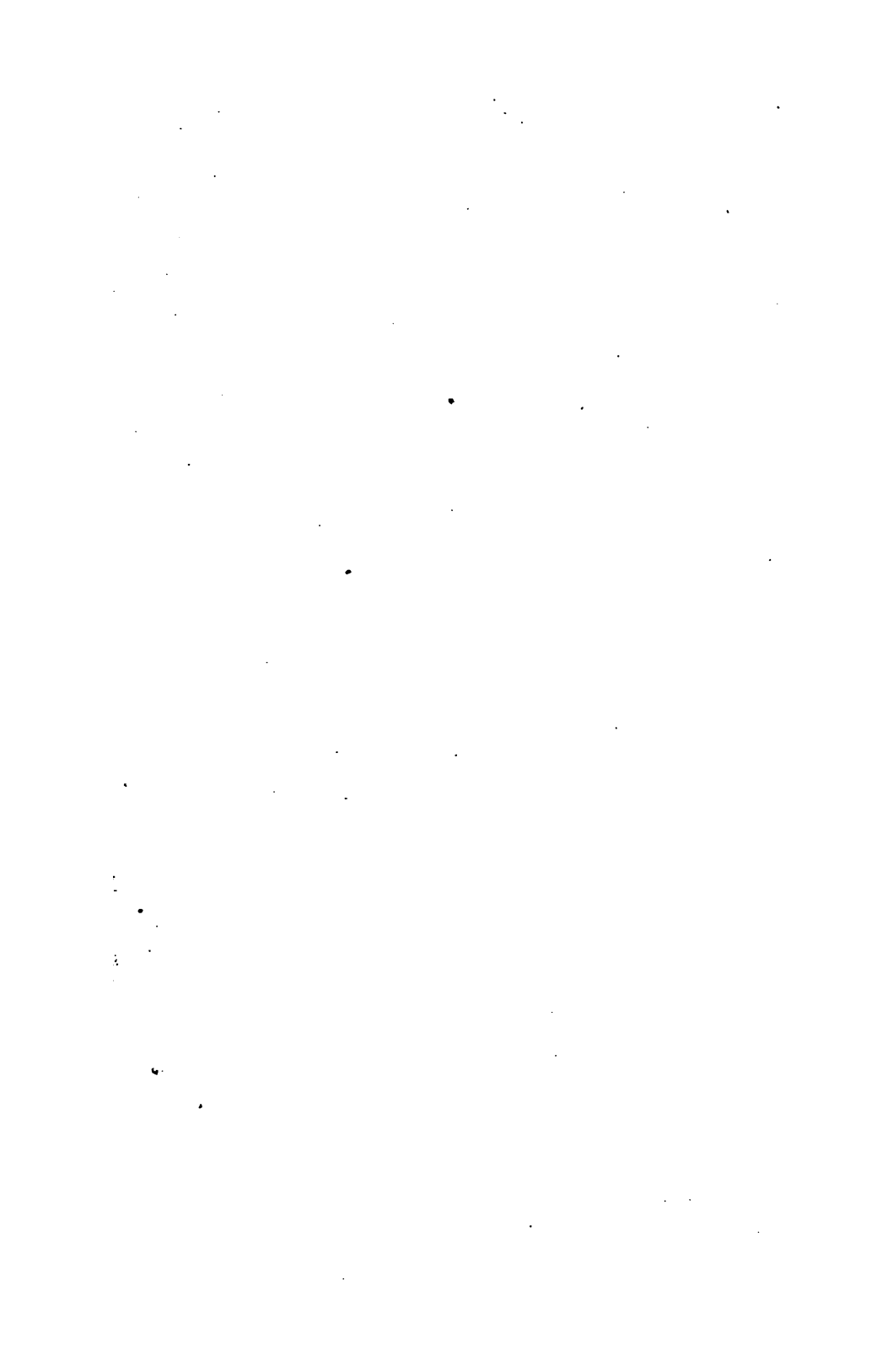


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A  
PRACTICAL WORK  
ON  
THE MANAGEMENT  
OF  
SMALL FARMS.

BY  
FEARGUS O'CONNOR, ESQ.,  
♦ (BARRISTER AT LAW.)

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## PREFACE.

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I HAD originally intended to devote the first number of this work to a developement of the means by which the working classes might, by a concentration of their own powers, acquire a sufficiency of land whereby the plan which I propose for their amelioration would be practically carried out upon a large scale. Upon re-consideration however (as many, very many, abuses of which the working classes are ignorant, and upon which other writers will not instruct them, and which stand in the way of all improvement), I have thought it best to commence my work with an exposure of those several abuses, lest I should be taunted with my inability to prove the existence of any practical grievances under the present system. For these reasons, then, I shall postpone the publication of the plan to which I look for the fulfilment of my object till a future number, when I shall have exposed those abuses which stand in the way of agricultural improvement. The task that I have undertaken not being a very easy one, no less in fact than that of giving a wholly new direction to the public mind upon the question of social improvement, the reader will see, that to have left my work half done or badly done, would have had the effect of marring that object, which I have so much at heart, and he will, therefore, at once acquiesce in the propriety of anticipating what may be urged in favour of the present system, and in opposition to that which I propose as a substitute. It has been the practice of all those writers who have preceded me upon this subject to mix up the question of agriculture with our commercial, manufacturing and monetary arrangements, not that I see how they can be well separated, if agriculture was made the main spring, instead of a mere stream flowing from those other sources. They, however,

have reversed the natural order of things, by treating the question of agriculture as one merely of finance, and as a medium of investment for surplus capital when it can be spared from the artificial market. I, upon the contrary, while I admit the minute and indissoluble connection which exists between those several interests, would make agriculture the source, and all others tributary streams flowing from it. Indeed, if I would rest satisfied with basing the argument upon a mere sweeping assertion, I could establish my position from this one fact: that although under even the present limited and vicious system, agriculture is treated as a mere secondary consideration, and although the difference between the value of a good and a middling harvest is, in point of amount, comparatively insignificant, and positively so when compared with the year's produce of machinery, yet do we find that the prospect of a good or a bad harvest has a much more powerful effect upon the other three interests unitedly than any other consideration could possibly have. It gives the standard value to real money, because artificial money cannot be successfully used in the natural market. Thus, if twenty millions sterling worth of British goods were sunk to the bottom of the sea, it would be a great advantage to 999 in every thousand, whereas if the difference between a good and a bad harvest required five millions sterling to supply the deficiency, the necessity for such a drag would paralyze all other interests which are regulated by the artificial standard. If, then, our present artificial system merely opens a narrow market for speculation in human labour to the great injury of a vast majority of society, and, if this injustice can be only checked by opening the natural market so wide that all may be enabled "to buy in the cheapest and sell in the dearest market," I think the working classes are justly entitled to demand the fulfilment of this principle of political economy, the justice of which is admitted by all, and the immediate necessity for acting upon which is so loudly advocated by those who demand "high wages, cheap bread, and plenty to do for the working classes."

## INTRODUCTION.

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THE object which I have in view in submitting a practical work upon the management of small farms to the working men of this country is, that each man who is willing to work may be independent of every other man in the world for his daily bread ; so that the prosperity of the country shall consist in an aggregate of happy individuals, rather than in a community of a few owners of all its aggregate wealth ; and upon whose speculation, whim, and caprice, the poor man must now depend for his bread. If I was to allow myself to enter upon a political discussion, I think I should be enabled to convince all those who boast of a love of country, that, upon the cultivation of their own domestic resources alone must the wealth, the stability, and the happiness of a people depend :—that in all our commercial transactions foreign countries can interfere so as materially to disarrange those rules and regulations by which trade and traffic are governed ; and that such interference materially affects the condition of the working classes ; while our land, and that alone, is a branch of the national wealth with which no foreign state can by possibility interfere. England has long been the work-shop of the world ; and, while her sons were employed in the manufacture of that machinery by which their own labour has now become a drug, they had not the foresight to discover that they were violating even the Malthusian rule, by creating the very worst description of over-population, a surplus which had no power of resistance, no rights to contend for, and consumed nothing : a surplus of machinery. The political economists assert, that when one channel of industry is closed another channel is opened. It is, then, because the whole course of industry is now choaked up, that I seek to open a field so wide that for centuries to come the people of this country would not be an overstock for the pasture. In short, to repeat it once more, my desire is to open a free labour market, wherein the value of labour in the artificial market can be established by a fixed rule, whereby, in all future manufacturing operations, demand and supply shall be regulated by some definable standard. I have upon many occasions expressed my disapproval of limiting the



uses of machinery by any legal enactment, and of correcting its abuses simply by driving its owners into the free labour market, for the employment of those hands by whom it is to be worked. In a word, if the man, whose labour when expended for himself be worth 2s., 3s., 5s., or 10s. a day, wishes to hire himself to work for another for 1s. a day, he is a willing slave and has no right to complain ; while, upon the other hand, the prices established in the free labour market would compel the English manufacturer to abandon that thimble-rigging system of speculation, by which that body, formerly respected throughout the world, and honoured and beloved at home, are now looked upon as smugglers of bad goods abroad, and as tyrant slave masters at home. I, in conjunction with all my friends, have ever honestly contended for a repeal of the Corn Laws, while those who call themselves *the real anti-monopolists*, would merely make such changes as would open a wider market for their productions created by artificial labour. We say that the Corn Laws must be repealed, and that the only way of doing so is by enabling the English workman, by growing his own corn, to be independent of all the foreign corn growers in the world, whether the value of his free labour production be 20s. or a 100s. the quarter. Such then are the motives with which I submit the following work for your perusal and consideration ; in the anxious hope that, should the plan meet with your approval, you will join with me in seeing it carried into practical operation.

## PRELIMINARY OBSERVATIONS.

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A good excuse and a patron may be looked upon as two things essential to an author. An excuse for having undertaken to write upon a subject already exhausted by others, and a patron whose countenance may be profitable. In my present undertaking, however, I look for neither the one nor the other. I need no excuse, as the subject upon which I am about to write has not only not been exhausted, but, as regards the interest of that class whose condition I wish to improve, it may be said to be wholly untouched; and, as to a profitable patron, I much doubt that any work of mine would be likely to receive the countenance, the favour, or support of individuals, whose obstinacy, perverseness and monopoly, I charge as the causes of every existing evil which by this publication I hope to destroy.

On the anniversary of the battle of Waterloo I sit down to consider whether man may not in the nineteenth century have assigned to him a better, a more pleasing, more profitable, more civilized, and more Christian occupation than that of human butcher. In the middle of summer, when every man should be able to make some calculation as to his prospects for the ensuing year, I am led to enquire why it is that none, save money-brokers and speculators in human misery, appear to be interested in that scarcity or abundance by which the Creator of the world may please to curse or bless his people. When I read of the progress of civilization through the diffusion of the Scriptures, while the eye daily dwells upon the reprobation of slavery, I am led to enquire by what means the theory of those professing philanthropists can be best carried into practice; and in my research I have come to the conclusion, that the emancipation of the working classes of this and of every other country can never be achieved except by placing the working population, or so many of them as may choose to embrace the offer, upon so much land as each can conveniently cultivate for his own sole use, behoof, and benefit.

It would but ill serve that purpose which I have so deeply at heart to compile a mass of theories upon the subject of agriculture without first having assigned good and sufficient reasons for leading me to the conclusion that it is

within the power of the people to achieve the means of carrying those theories into practice. It may be said that the subject of agriculture is not a new one. I admit it; but then it has only been discussed as a question between landlord and tenant, between monopolists and anti-monopolists. In the discussion of this all-embracing subject, the immediate interest of the working classes has been left wholly out of view; nay, guardedly so, lest a proper explication of the subject as regards their interest should deprive the landlords of that monopoly of legislation which the mal-appropriation of their estates confers upon them, and lest it should deprive the capitalist of that slave-labour by which he is enabled to hoard riches—the restrictions and conditions of the one class creating an artificial surplus population in the labour market for the other class. I think I may lay it down as an indisputable, or at least as an incontrovertible, fact, that England, according to her system of government, is overpopulated; and it must be further admitted that, while ten millions may constitute an over-population under unwholesome restrictions and a bad system, forty millions may prosper in the same country under a good system. The greatest difficulty against which I shall have to contend in my present undertaking will be, not so much the ignorance of the working classes upon the subject of agriculture, as the difficulty of leading the mind trained up in an artificial life to a belief in the advantages to be derived from my system, and the practicability of availing themselves of those advantages. It is not enough that I feel convinced of the feasibility of my plan and the power of the working people to carry it into effect; it will be necessary, for the achievement of this great national object, to enlist in its support the attention and the co-operation of the working classes themselves, and then it is done.

Much that I have written in newspapers upon this subject has had its weight with the factory slaves, and, as I intend this work to form a complete compendium, I shall here condense from those publications the social and political bearings of the landed question. Socially, then, it will be admitted, that of late years the bulk of the population have been starving in the midst of a surplus capital created by their industry, and so reduced in value by the substitution of machinery for their labour; and whereby they have ceased to be wholesome or profitable consumers, as not to be worth more than one per cent. Remedy after remedy has been proposed for this great national disease, as power has passed from the hands of one party to the other: the landlords arraigning the savage tyranny of the manufacturers without having the courage or the honesty to place the people in a condition successfully to contend against their atrocities; the



manufacturers, upon the other hand, contending for an extension of that trade, the overstock of which has already brought ruin upon the country, and each extension of which will but add new misfortunes, until at length, should they be powerful enough to succeed, they would become bankrupt in the midst of an artificial abundance.

While I contend that machinery under the present system is the greatest enemy of the working classes, of knowledge, of civilization, of morality and freedom, I would not wish to see its progress restrained by law. I complain not of the use, but of the abuse, of machinery, and the wholesome restriction which I would lay upon it would be that of fair competition for its working in the free labour market. I would not say to the capitalist, whether cotton spinner, iron master, or mine owner, you shall not use machinery in your several trades; nor would I lay a tax upon that machinery, because the capitalist always has it in his power to hold himself harmless and of even making profit of taxes. The change therefore that I would suggest would be just this, instead of allowing the capitalist to send his slave master to the market-place or cellar for the purpose of bidding for the labour of an impoverished set of unwilling idlers, whose very necessities compel them not only to underbid each other, but to look upon each other with jealousy, as a farmer looks upon the rival stock of his neighbour—instead, I say, of sending him to such a market to purchase slaves, I would let him go for a supply to the free labour market, where man would at least have that protection which would give him a choice in the selection of work. I would allow him to say to a man, earning by his own labour upon the land a sufficiency to maintain himself and his family in a state of independence and comfort, to educate them, to clothe them, and, after all, to lay up annually wherewith the old couple in the winter of life may live cheerfully without being indebted to the hospitality of an Almshouse. I would let him say to a man in that state, if you are dissatisfied with responsibility, if you would prefer house labour to field labour, the town fog to the country air, and the gin palace to the lecture room, come with me and you shall have precisely the same rate of wages that you have been able to earn by your labour on your farm. If that man went, he would have gone of his own free will, and to oppose him would be tyranny, while the necessity imposed upon the capitalist to measure his wages by the standard of the free labour market, would of itself impose a sufficient and a wholesome restriction upon machinery. Such a hiring would at once restore to English manufacturers that character which

they gained for themselves, when the wages for labour was satisfactory to the workmen and remunerating to them, and which they lost as the rate of wages declined. While discussing the subject under this head, I think I may without ostentation direct attention to the fact, that, for twenty years, I have been strenuously advocating the small-farm system, and the necessity that existed for the improvement of the land, without receiving support, from any quarter, until the tariff of Sir Robert Peel opened the eyes of the landlords of England; and since then there is no subject treated of in the press or the literature of the day, discussed in the House of Commons, or talked of in society, into which the land is not introduced as the leading feature.

Socially, then, I declare it as my opinion that no Minister, that no party, that no combination of interests, can long withhold the land from its legitimate, most just, and most profitable uses. Politically, every man who has been in the habit of taking part at elections, as an elector or non-elect, must have discovered that the present franchise differs but in amount, and not at all in principle, from the forty-shilling franchise that existed in Ireland previous to 1829. In fact, the dependence of a tenant who holds 100 acres upon a short lease, or fifty pounds' worth of land at will, is much greater than that of the forty-shilling freeholder; and therefore is the present constituency more subservient than even the old forty-shilling constituency of Ireland, who were looked upon as a portion of the live-stock on his honour's estate. It is almost an insult to the understanding of a working man to remind him, that, as long as the vast estates of the present proprietors best serve the purposes of their owners by so leasing them in such large and unprofitable allotments as will give to the tenant an interest in the holding greater than as a free man he will have in his vote, and so long as the use of that vote by the landlord gives to him political patronage to a much larger amount than he has sacrificed by the mal-appropriation of his land, so long will the land be used by him as a mere political machine, and so long will the people, disinherited from the land, be looked upon as slaves living upon sufferance.

The question may here arise then, as to which of the changes that I contend for should have the priority:—the establishment of the small farm principle—or the enactment of the People's Charter, by which the land would be stripped of its political qualification. I was engaged for some years with the working classes in their struggle for political emancipation, before I ventured to introduce the subject of the land for their consideration, well knowing that a time of artificial commercial prosperity was not the most fitting for the entertainment of so large a question. Perhaps, therefore, I may be pardoned, if in the course of the remarks



that I am about to make, I shall be guilty of a usual error, that of estimating the forwardness of the public mind upon this subject, by the amount of thought which I have given to it myself. In answer, therefore, to the question that I have propounded, I should say, that without political power the system never could be made so general as to be of national benefit; while, upon the other hand, I do not believe that any other inducement, save that of the practical result of the plan of small farms, ever will be sufficiently strong to produce such a public feeling as will bring into moral action such an amount of mind in favour of both changes, as neither minister or party would dare to resist. Therefore, from this reasoning I incline to think that the possession of political power is indispensable as a means for making the plan of free labour a national benefit; while I am further of opinion, that no writing, no talking, no reasoning, no declamation, no exaggeration, can have the effect of enlisting, in support of the small farm plan, the one hundredth part of that thought and mind which the *practice*, if seen to a considerable extent, would produce. So powerful has been the reliance of intolerant faction upon the ignorance and prejudice of the people, that they have not unfrequently had recourse to a mere perversion of terms as a means of upholding their own superiority. Thus the term "social," which means neither more nor less than "fit for society," is invariably thwarted into a declaration of infidelity. Allow me then, for your protection, and in justice to myself, here for the first time in my life to state my own religious feelings, without being so unchristian or intolerant as to make them a justification for harshly judging those of others. I am a Socialist in the true sense of the word by desiring to fit all things for society, while I am, I trust, a Christian in the purest sense of the word, having a thorough conviction that I was created by an all-wise God for some more profitable purpose than that of waddling through the world as a selfish being looking only to my own ease and comfort in my passage through life. I believe that I, in common with all others, was sent here for some better purpose, and that purpose was to be a cog in the great social wheel, by the working of which that fitness of things to society is to be brought about. I do not believe in the wicked doctrine of death-bed repentance, nor in the damnable doctrine that good works are of no avail. If I could bring my mind to that state of obtuse bigotry, I should at once abandon the holy work of attempting to serve God's creatures, and fit myself for holy orders. I believe that I shall have one day, when it pleases God to call upon me, to give an account of my life, and while I do not expect to be able to

establish its entire purity, I shall guard myself against the severest of all judgments, that of being judged for harshly judging others. For this reason, while I thus declare my own religious feelings, I abstain from pronouncing an anathema upon those who have the honesty to confess their inability to arrive at the same conclusions. I do not feel myself lessened by being thus compelled in a work of this kind to declare my religious creed, while I hold the obligation to do so to be a censure upon those prejudices which demand it.

In conformity then with the terms of my belief, I am about to present to the industrious of all classes the means whereby social happiness, political freedom, and the pure spirit of religion, may be introduced into this country, as a substitute for the misery, the discomfort, and the immorality at present prevailing, and all of which are consequences of that inequality created by class legislation, and upheld for no better purpose than that of distinguishing society, by making one portion so wealthy that all consideration of duty, of morality and religion, is lost in the enjoyment of too easily acquired luxuries, and another class so poor that all the finer feelings (which if properly cultivated would lead to an honourable distinction,) are sacrificed, as the exercise of them in our present state of *commercial civilization* would but render a poor man an object of ridicule, laughter, and contempt.

It has been a mystery to some of our muddle-pated writers upon first principles—men whom I call intellectual miners, how any system could at the same time benefit the whole of society: some contending that what is beneficial to the landlord would be prejudicial to the manufacturer: others, that what is meat for the tenant would be poison to the Landlord. Every man, however, who takes the trouble to analyse the whole subject, must come to the conclusion, that the most profitable cultivation of our national resources would open a field for industry so large, that the security of the landlord, the capitalist, and the speculator, would be considerably increased, and their profits enlarged by a judicious employment of the labour of the country.

What now obliges us to attach so much importance to a repeal of the Corn Laws, and the importation of foreign grain? What is it that has reduced the profits of the landlord, the capital of the tenant, and the profit of the manufacturer? Surely not that with an increased population land at home has become cheaper, manufactured goods less in use, and capital of less value; but simply because the one great natural labour market has been closed against the population by political speculators, while the whole population of the world could not consume in



three years the amount of English goods produced in the artificial market in one year, to the great disadvantage of 999 in every 1000 of the community.

Political Economy is in the mouth of all your large manufacturers and their interested supporters, whereas, their practice is diametrically opposed to the true principles of that science. If the term means, as I take it to mean, the most profitable and just application of the industrial powers to the productive means of a country, then I hold that a system which has directly an opposite tendency cannot be considered political economy. Let us see what the result of a large competitive trade in artificial production must inevitably be, and let us then see whether or no the present anomalous state of society has been produced by this system. We know that the only profits which masters can now rely upon, are those derived from low wages, fines, batings and stoppages, and that, therefore, the traffic of the present race of manufacturers is in the labour of the poor man. For instance, let us suppose a master employing two thousand hands, and let us take our picture fairly from this community of two thousand and one persons. Supposing machinery to be so improved that a portion of the operative class which in June was scanty as compared with the requirements for working the old machinery, in July becomes a surplus population, made so by the improvements—Now in such case the employer makes no calculation as to the relative value of produce in June and July, for even supposing the article to have risen, it is not upon that, so much as upon the labour reduced by this overplus, that he speculates. He will very naturally go to his hands and say, there is a large stock of unemployed labour in the market and you must either consent to have yours reduced, or else I will go into the market and purchase it at a cheaper rate. Under these circumstances what alternative has the poor slave other than to consent either to a reduction or dismissal, and consequent starvation. Let us, then, suppose that the master, placed in this advantageous situation, reduces the wages of his hands even 4*d.* a day, that, upon 2,000, would amount to £10,400 per annum. Let us, then, see in how far this gentleman's system of political economy is beneficial to the landlord class and the shop-keeping class, having already shown its effects upon the producing class. You will see that I am compelled to take this course, in order to meet the prejudices and to check the insanity of those of the middle classes who bawl out for a repeal of the corn laws, in the hope that an extension of trade would give them some share in the profits. What I want to do is this; I want to show them that the power of the masters to speculate upon labour, and that alone, will always



have the effect of keeping wages down to that point at which it ceases to be of any benefit to the shopkeeping class, and that the only effect of what is called free trade, would be to magnify the present frightful difference between the one and the 2,000 of that community whose relative positions I am now contrasting. The effect of this arrangement is to enable one man to rob 2,000 of £10,400 a year; and, let me ask, or, rather, let me draw a picture of what must be the state of the shop-keeping class, whose lot it is to serve such a community. In the present case, where the master unjustly takes £10,400 a year, and mind, independent of stoppages, fines, and batings, the shopkeepers not only lose their entire profit upon that amount, but the very capital invested in the hope of better trade, and which has been thus sacrificed to the power of the manufacturer, becomes deteriorated: whereas, had that sum circulated through the legitimate channel, every farthing of it, and more, would have gone into the tills of the shopkeepers. But I will follow the portrait up, as from the miniature that I am now painting I mean to represent the full-length picture of misery which the state of this country at present presents. Herein, then, lies the error; not only do the monies belonging to 2,000 find their way into the pocket of the one, to the injury of those over whom he has power, but it indirectly operates against the interest of those over whom he does not appear to have any influence. And not only that, but every new injustice successfully practised enables him to extend his speculation, while it leaves those directly and indirectly dependent upon him still more at his mercy and disposal. To speak very familiarly to all classes, let me now ask whether it would be more beneficial to society generally if one man was possessed of an enormous income, or the whole community of which he was a member were comparative participants in the amount. Then let us ask what the individual benefits and the national losses are which are created by this arrangement. The one usurper looks for some national security or bubble investment, wherefrom he may derive profit for his £10,400, while the landlords and the shopkeepers are compelled to submit to taxation for the relief of the poor, a rural police to keep them in subjection in their poverty, law proceedings to persecute them if they complain, and assessments for dispensaries and hospitals when diseased from want; while the eye is shocked and the feelings fretted by the constant exhibition of those objects produced by this system of tyranny and oppression.

The reader who may have purchased this work from the notice in the announcement of it to the public, may very naturally ask what connection these varied subjects have with the consideration of the best mode of cultivating small farms? To such I would

reply, that, unless I am enabled, by a fair exposure of existing fallacies, to enlist a sufficient support for that which I propose as a substitute, I can have but little hope of success; while I have a strong reliance upon the prudence and good sense of the middling classes, when fairly instructed upon this subject, that they will aid and assist, by all the legitimate means at their disposal, in the accomplishment of my plan. If we now take the monstrous disparity existing between the one and the two thousand of a community which I have described, I think we may adopt the standard as a fair representation of the whole of society. That is, that at present there is, out of all comparison, in the hands of a small number of individuals, more money and money's worth than ever was known to be in the possession of the whole population before, while at the same time there is more distress simultaneously existing. Now, what is the cause of this but the usurpation by one of what belongs to two thousand and one; and which, if legitimately distributed among the whole, would also add to the profit and comfort of those who have no other means of support or existence than that which springs from their traffic as shopkeepers. Suppose the £10,400, extorted as I have described, to be consolidated into a fund, for the general benefit of the 2,000, that, at five per cent., would amount to £520 a year for ever; while its proper administration, for the benefit of the indigent of that body, would be a good substitute for a rural police, poor laws, legal persecution, hospital and dispensaries, and the cost of maintaining which now falls, as I have described, upon the middle classes and landlords. But the evil does not even end here, for independently of the gross injustice thus directly inflicted upon the two thousand, they are further injured by the necessity imposed upon them of subscribing out of their reduced means to those several clubs, unions, and societies to which they are obliged to look as a substitute for that wages of which they have been robbed, and for the existence of which there would be no necessity but for the plunder of the *ONE*. As labour is admitted to be the source of all wealth, I hope to establish, on behalf of the labourer, his fair claim to that protection, the withholding of which has originated every grievance of which all classes of society justly complain; and the restoration of which can alone save the empire from the convulsion which no other power on earth can long retard. I have supposed, then, the improvement in machinery, itself, without reference to any decline in the price of its produce, to enable the one proprietor to make profit of the labour of two thousand. I am therefore justified in considering this an act of outrageous injustice, and one which, if not resisted and put down,



would justify me in designating the ministers that would uphold it as a rebel administration. There is no feeling which so sweetens the bread of life, or which so reconciles the slave to his daily toil, as the fond hope that he is laying up in youth a store whereon he may live in quiet in his old age. And if all other classes are induced by such anticipation to live sparingly, and spend grudgingly, in the hope of one day retiring from the scene of busy life, why, I should ask, is the industrious man, by whose labour this anticipation is to be realized, to be the only one who can have no chance of realizing it for himself.

I will now suppose this £10,400 per annum to be spent in the purchase of that quality of land which would require no other capital than that of labour for bringing it to the very highest state of cultivation; and from that calculation I shall be enabled to show how soon the really industrious, if "THROWN UPON THEIR OWN RESOURCES," would be enabled to work out their own salvation. I shall value such land then at fifteen shillings per acre, and at the usual price such land would be worth twenty-five years' purchase. That is, each acre would be worth £18 15s., if bought for ever, and the whole sum of £10,400 per annum, that is the sum stolen by the one from the two thousand, if laid out in the purchase of land, would buy five hundred acres and leave a surplus of one thousand and twenty-five pounds. Let us now have recourse to a bit of real political economy, and let us see how the producing power could be best applied to the producing means. Five hundred acres would divide into one hundred and twenty-five farms, of four acres each. Each farm would support, upon the labour of one man, a family of seven, and leave a large overplus for his own use. If we multiply a hundred and twenty-five, the number of families that that quantity of ground would maintain, by seven, the number in each family, we have eight hundred and seventy-five of the two thousand located for life upon land purchased out of a fund which is now appropriated by the one usurper. Moreover, the surplus of one thousand and twenty-five pounds would allow to each a sum of eight pounds to begin with, while the freehold of four acres would be good security upon which to raise sixty pounds wherewith to erect a suitable habitation, and from which no tyrant could eject him. I think I am entitled to ask any political economist, which of my assertions, or which of my calculations, he objects to, or can refute. I will make them clear in a short summary, so that none shall misunderstand or can pervert them. What I assert then is, that master manufacturers have the power of reducing wages by being enabled to fall back upon a system-made over-population, and that they do reduce wages in the same ratio in which

that over stock is augmented by the new improvements of machinery, and without any reference to the rise or fall in the production of that machinery. No doubt the answer to this assertion will be, that the manufacturers themselves have of late years sustained considerable losses. This, however, I deny as furnishing any answer to my assertion. But, on the contrary, I assert that the very system of accumulation by the heads of trades, and which I have before pointed out, applies as well to that of manufacturers as to any other. The cause of complaint then, as regards the falling off in profits, has been made an unjust use of by the fortunate in that trade. Thus, while I am ready to admit the stoppage of many mills with old machinery, and the failure of many masters with small capitals; yet I assert that there is in the hands of the remaining portion, more money and more trade than ever there was before in the possession of the larger community of speculators. It is all very well for gentlemen who made millions in "the good times" to grumble now at losing hundreds in bad times, brought about by their own reckless gambling. However, as I am quarrelling with the system which has produced this general despondency and sorrow, I have a perfect right not only to object to the accumulation of monies in the hands of the survivors, but I have also a right to take into my calculation the injury done to the labouring classes, and through them to society in general by those very failures which seem to excite sympathy for the unfortunate. Indeed, it is one of the things I complain of, that the imprudence, the neglect, or the speculations of one should bring destruction upon the remaining two thousand of the community, whereas, had justice been done to the whole body, either the one would not have failed, or, if he had, his failure would have only injured himself, had he while in business dealt justly with those in his employ. That forms one of my assertions: the next is, that four-pence a day is a very small amount for masters to reduce upon the improvement of machinery and the consequent glut of the labour market. The next is, that good land can be had for fifteen shillings an acre, and can be bought at twenty-five years' purchase. My calculation as to the capabilities of that land, and its power of supporting the numbers that I have assigned to it, together with the overplus of production, I shall establish beyond refutation in its proper place. Thus then, I assert, let who can deny it, that two thousand men, whose wages are reduced by four-pence a day, would be enabled but for that reduction, and if that amount was applied to the purchase of land, to provide annually for eight hundred and seventy-five, or nearly one half of the whole body, while the labour of one hundred and twenty-five of that



number, would, after supplying the eight hundred and seventy-five with a sufficiency of every thing, leave more than enough of surplus production for the remaining eleven hundred and twenty-five of the community of two thousand, while, according to the present system, they would be compelled to go on slaving through the longest life, for the mere means of preserving a miserable existence for another hour of misery, and always furnishing auxiliaries to the plunderers and demagogues in their attacks and crusades upon the little that yet remains valuable of the institutions of the country. I now ask you, working man, who has read, or who has heard this calculation read to you, whether or not I have established the truth of the saying that "labour is the source of all wealth." I further ask you what hope you can have that those who are thus enabled to live upon you will ever join in any plan calculated in the slightest degree to relieve you from their aggressions, or to make you independent of their will and controul. Perhaps one great reason to be assigned for the middling classes not having sooner turned their attention to the improvement capable of being made in their own condition by bettering that of the working classes, has been the very brisk and fascinating agitation kept up by the anti-corn-law league, with professedly the same object, and which they are persuaded would be more easily achieved by a repeal of the corn-laws than by the small farm system. Many of the working classes themselves, unused to sophistry, incapable of deceiving, and disinclined to doubt others, were really inspired with hope through a repeal of the corn-laws. All anticipations from that measure, however, have now failed; not more in consequence of the information that has been spread amongst them by their own lecturers, than by the practices resorted to by some of the loudest advocates of free trade. And as one fact is worth a thousand arguments, I shall here faithfully narrate a circumstance which has this moment come to my knowledge. The leading advocate of free-trade principles in Spitalfields has recently reduced the wages of his hands by 4*d.* a-day, at a time when the price of their produce has considerably risen, and at a time when the masters find it difficult to procure a sufficiency of workmen. Now this gentleman was one of those who succeeded in leading the Spitalfields weavers to the belief that a repeal of the corn-laws would have the effect of raising the price of wages from the competition which the increased demand for labour would create; and yet this very man, upon the first appearance of briskness in his own trade, reduces the wages of his hands as I have stated; and the consequence is, that the Spitalfields weavers have, since that occurrence took place, driven the anti-corn-law lecturers out of their district as treacherous deceivers.

Having thus established the fact that labour, when confined to the artificial market, must be sold at whatever price the capitalist pleases to give for it, I shall now proceed shortly to contrast the difference between the life of an operative selling his labour in the artificial market, and that of a farming labourer, working for himself in the natural market. Socially, then, if that term means the fitting of things to society, the man who hires his labour must, under any circumstances, be a slave, if the act is not a voluntary one, inasmuch as he loses all self-control, and becomes a machine at the disposal of another, and under no conceivable system could this state of dependency be pushed to greater lengths than it has been by the present race of master manufacturers. I shall therefore draw a picture of the unnatural state in which the present class of operatives are compelled to live, and contrast it with that of a free labourer. In some cases women only are employed, and in such cases the house loses its greatest ornament, and the family its greatest support, the children being deprived of their natural and most interested protector and adviser just at that time when they stand most in need of a mother's care. This system of hiring women to the rejection of men must naturally debase the character of both, by reversing their natural positions and making the husband a dependant upon the labour of his wife, while his creditable support of her and the family should constitute his greatest pride. But beyond those now prevalent disagreements between husband and wife, which we daily read of with so much sorrow, and which are wholly attributable to these unnatural causes, we may add the general disorganization of the whole family circle. The more nearly we can conform to nature's rules without trenching upon the rights of others the better, and where they are deviated from, it can only be tolerated upon the plea that that deviation is of general advantage. But where all those rules by which the human family should be governed are hourly violated to the disadvantage of thousands for the advantage of individuals, then does it become the duty of every philanthropist to lend his aid in their destruction. What can be more unnatural than that a father should be compelled to walk in idleness while his wife is constrained to absent herself from her home and her family every day in the year to labour like a slave for their maintenance. What can be more at variance with the ordinances of nature than that a whole family, old and young, male and female, weakly and robust, sick and healthy, should be constrained to rise at the same hour, to eat at the same time, to work almost the same number of hours, and to retire to rest together. What can be more degrading than



the task imposed upon the father of taking the babe to the charnel house at stated periods, to be suckled by its toiling mother ? Or what can be more fretting to the feelings of the mother than to be compelled to consign her babe to the care of a hired nurse, in order that she may be the sooner fitted for her toil ? Such are the outrages to which this system subjects those who are compelled to sell their labour in the artificial market. Alas ! what a striking contrast the life of a free labourer, working for himself, presents to that sorrowful picture that I have just drawn. It is his pride to rise betimes, according to his strength, rejoicing in the reflection that upon his industry the whole family must depend ; while, in return, he looks for that contentment which a happy home alone can bestow. He is a Socialist in the true acceptation of the word, fitting things to that small society of which he is the head. If he should be overworked, or even drowsy, he dreads not the awful sound of the morning toll of the factory bell. He is not deprived of the comfort of the society of his wife ; he is not degraded by living as a prostitute upon her and his children's labour. He is not reduced to the humiliating necessity of shaking his slumbering babe into a kind of artificial life, in order that she may obey the capitalist's morning summons. He sees no cripple at his board, no dwarf in his family. All are straight, erect, and healthy, because each has been trained according to their strength. There is no obligation imposed upon him of estranging his child from its mother's breast. He is master of himself and of his time, and is answerable to society for the disposal of both. He seeks no refuge for wounded feelings in the beer shop or the gin palace. His every hour of recreation is too short for the enjoyment of the society of that family, the proper bringing up of which is his greatest pride ; and the neglect of which, as a free agent, would entail upon him the highest censure. The system which I propose would at once develope all the virtues of our nature, while I defy the devil himself to invent one so well calculated to foster and encourage all those vices to which man is heir, as that which I labour to destroy. Never lose sight of this one irrefutable fact, that man is born with propensities which may be nourished into virtues, or thwarted into vices, according to his training. That the system which I propose would nourish those propensities into virtues, which would constitute the characteristic of Englishmen, while the slave system now in operation, thwarts those propensities into vices, and gives to our code of laws the appearance of enactments made upon a general scale of prison discipline, rather than laws for the proper government of society. Before I commence my work upon Practical Farming, which I trust will, before I die, be carried

into general effect, allow me here to observe that passing events fully prove that I saw many years ago the destruction and danger which the monopoly of landlords and the conditions upon which land was leased would bring upon society: I then sought to remedy those evils by Act of Parliament, but was laughed at by the very parties who are now contending for the very alterations which I then endeavoured to bring about. Early in 1835 I placed a notice of the following motion upon the order book of the House of Commons, "To move for leave to bring in a bill to compel landlords to make leases for ever at a corn rent, and in all cases of existing contracts under which lands were held at too high a rate, to establish the real value by the decision of a jury, in like manner as the crown and corporate bodies have the power of assessing the value of private property when required for public purposes." If we look to Ireland, a purely agricultural country, at the present moment, what are the changes which are now sought for? Is not the general principle contended for, "fixity of tenure," not, I admit, as comprehensive as that which I proposed to establish, while, at the same time we hear of the valuation of a jury being demanded as a means of doing justice to the occupying tenant. This altered tone inspires me with great confidence as far as the acknowledgment of the principle goes, while I fear that its recognition, like all other changes under our present representative system, and the awful dependancy of the working classes upon capitalists, would only affect the interest of large farmers, while it would not in the slightest degree tend to create a class of farming labourers: in short the law being made by one class would be confined to the advantage of that class alone.

I shall now proceed with a work, which, however it may be read by the jaundiced eye of living prejudice, will, when I am no more, and when that prejudice is destroyed, constitute a part of the property of many a free man yet unborn, and will be cherished as one of the sources from whence his freedom has sprung, and the means by which his independence may be preserved. If I can accomplish so desirable an object, or if I can be the means of inducing others to do so, then may the hired scribe, the slanderer, the self tormentor, and hypocrite, call me devil, Jew, or infidel, while I can take my morning walk and evening stroll, and rejoicing in the contentment, the prosperity and comfort by which, at every step, my eye is gladdened, exclaim, in the language of the proud Peruvian, **THIS, THIS IS MY WORK.**"





## ON PRACTICAL FARMING.

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"A true labourer earns that he eats; gets that he wears; owes no man hate; envies no man's happiness; glad of other men's good; content under his own privations; and his chief pride is in the modest comforts of his condition."—*Shakspeare*.

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### WASTE LANDS.

Although in the present scanty state of the population of England, as compared with the amount of partially-reclaimed land, I do not mean to dwell upon waste lands as a means of opening a field for the most profitable application of free labour, yet, as many works have been written upon the subject, and as writers upon agriculture do in general, as I have before stated, direct the attention of the readers principally, if not entirely, to a consideration of those means whereby surplus capital, as it is called, may be most beneficially expended in agricultural pursuits, I feel myself called upon to combat such notions. Those who attach so much importance to the cultivation of waste lands, are, for the most part, if not altogether, advocates of the large farm system. Taking, then, this double approval of the cultivation of waste lands and of large farms, we must consider such writers merely in the light of inventors of new securities for accumulated wealth, without any reference whatever to the improvement of the working classes. I never have contended for the bringing in, as it is called, and the cultivation of, waste lands as a means of affording relief to the working classes. This is a branch of agriculture well worthy the consideration of those who would expend capital in the hope of a fair, nay, of a very large return. But, inasmuch as it requires an amount of money-capital beyond the reach of the working classes, as far as their interest is concerned I leave it out of the question as a means of bettering them, until such time as an amount of money sufficiently large to assign to each enough to carry on the necessary operations shall be raised by a Government loan, and appropriated for that purpose. Nothing could more damp the ardour of those who are now anxious about the small farm system, than to see it attempted to be carried out upon a cold, swampy moor, or barren heath; while, upon the other hand, nothing could so wed them to the system as the

rapid improvement that would be observable in the condition of the occupiers of land of an average quality. If I was again to make agriculture my pursuit, and if the value of land could be ascertained by an unerring, or by even a probably correct standard, I would much prefer giving £5 an acre for land valued at £4, to giving 30s. an acre for land valued at 40s., and I would prefer giving £3 an acre for land valued at 20s., to taking £2 an acre as a bonus upon land worth but 1s. an acre. Now the reason of this must be obvious to every practical farmer, and must be made intelligible to those who are to become such. My reason, then, for the preference, is because where land is held for ever, or even upon a long lease, rent is comparatively an insignificant item in the farmer's general account, while, as I shall show under the head of "Large Farms," it is the item of greatest importance. Now, if I paid a higher rent, say by a pound an acre, than the land was worth, for four acres of ground, I would have the following disadvantages and advantages. The disadvantage would be the payment of £4 extra rent. The advantages would be that less seed is required for ground in proportion to its excellence, less labour is required in its cultivation, and less damage is to be apprehended to the crops from adverse seasons; while the extra value of the total produce upon the four dearer acres, as compared with the total value of the four cheaper acres produced by the same amount of labour, would far exceed the amount of the whole rent of the good land. Upon the other hand, place the best labourer upon the four acres worth a shilling per acre, and give him £2 per annum, that is £8, as a reward for cultivating it, and in less than three years his heart would break from disappointment. What a miserable picture he would present as contrasted with a neighbour paying £20 a year for four acres, upon which every delve would tell and every ray of sunshine would have its due effect, while every seed set would return its multiplied abundance. The improvement of waste lands, then, is a speculation in which capitalists may with the greatest safety invest their spare monies and with a certainty of good interest, while for the poor man it is of all others the most hopeless source from whence to expect any return for the expenditure of his labour. Moreover, under a good system and the abandonment of horse labour, we have in cultivation a sufficient amount of good and improvable land, quite capable of supporting more than four times our population in contentment, comfort and happiness, while a just appropriation would even add to the wealth, the comforts and security of the already too rich but comfortless and insecure. Waste lands are merely to be nibbled at, a bit here, and a bit there occasionally brought into



cultivation, or, may, be, improved in large portions by dint of capital and with a rapidity of action neither of which are within the reach of the poor man. The several writers upon the cultivation of waste lands all write in the same strain. Draining, paring, burning, adding to surface soil and recommending their favorite manures, all of which are expensive operations in themselves, and which, when quickly done, may leave a fair remuneration for the expenditure of capital, but without which they would be a great gullet swallowing up without a return the slow labour of one individual. As I really write with a view to instruct all classes and to bring all within the pale of profitable cultivation, I shall now, having instructed you upon the question of waste lands, give directions for their proper cultivation to those who have capital to invest in that process.

The first thing to be done then is to make as many main drains as are necessary to cut across the several springs that may be discovered, striking at the source or head as nearly as possible. The drains should be made in this form V taking care so to bevel the sides that the earth shall not crumble and thereby stop the course of the water. The next process should be that of rolling with a heavy roller. When the surface appears to be well dried, it should be pared, that is, cut into sods of about two inches thick, this should be done upon the first appearance of dry weather in spring, and the sods should be turned until they are sufficiently dry to be cocked, or placed in the form of a cocked hat, three placed on the end, resting against each other, with space for the wind to pass through. When sufficiently long in that position they should be turn-cocked, so that the part which had formerly been resting on the ground should be placed uppermost to give it the benefit of the wind. When the sods are sufficiently dry they should be made into small heaps, something larger than a wheelbarrow, and set on fire. When burnt to ashes, and after the fire is completely extinguished, the heaps should be spread before clotted by rain, and the calmest time should be selected for the operation to prevent the wind blowing the ashes about. The crops most suited to the ground in its then state, are potatoes, which make the very best seed for upland, black or Tartary oats, or rape, the latter of which I would much prefer.

The great difficulty, however, of the bringing in of waste lands consists in hitting upon the most congenial manure and in giving a surface to the peat soil. It has frequently been my lot to see an ignorant capitalist burying his money in bogs and swamps, while just at hand there was a mine of gold. I will explain what I mean. This spewey ground requires a greater weight of surface than from its nature it can afford for

the pressure of that surface water which in such soils no drains can reach. It retains the water like a sponge, and requires surface pressure to keep it out of harm's way. Well then, this object can only be effected by the addition of some artificial surface, no manure of any sort will be of the slightest benefit until this grand object is firstly achieved, and to the means of attaining which I now beg leave to direct the attention of the waste-land-improving capitalist.

Suppose, then, one person to set about reclaiming one hundred acres of moor-land. His first object must be to look for the means of adding a heavy artificial surface. This can only be effected by the following process: I must naturally suppose that he has land of a better quality in the immediate neighbourhood of his waste. I will suppose a small hill or mound of earth covering a quarter of an acre of ground, this, if his own, or if purchased at twenty times its value and mixed with lime after being dug, will enable him to give from time to time an artificial surface of three inches in depth and of the very best description to his one hundred acres. By proper management an inch and a half of the sub-soil, that immediately under the artificial surface, may be added to it every year, and thus in the fourth year he would have a good surface of nine inches. The proximity of this artificial surface to that immediately under it of itself considerably enriches its neighbour, while it is admitted that this artificial surface is of all things necessary to complete the process of bringing in waste lands. Perhaps I may be told that the hill for effecting the object is not always at hand: I don't say that it is, I merely say, that, if it is there, it should be applied as I describe as being the cheapest mode, while the want of it, if not there, must be supplied by other means, and the thing then is to consider those means. We may naturally presume that in the neighbourhood of this moor, either the proprietor himself will have six acres of land worth a pound an acre, or one hundred and twenty pounds; or, if he has not got it himself, he may be able to purchase it even at an exorbitant rate in the neighbourhood. Being possessed either of the hill or of the six acres of ground then, what I would recommend him to do to his 100 acres of land is this—or rather, for the more easy illustration of my plan, let us take sixteen acres, or nearly one sixth of the whole, and apply one acre of ground for its reclamation. One acre, then, stripped of four feet of the surface mixed with lime and turned until ready to be put out, would give somewhat more than three inches of surface to the sixteen acres, while the land thus stripped of four feet of surface would be far from valueless, as, even after that loss it



would be in a better state to yield a most beneficial crop, (and which in all agricultural works I am astonished to find wholly unnoticed,) than it was before. I mean French furze, and of which I shall treat in its proper place, merely observing for the present that wild earth is the soil in which this plant best flourishes; while one acre will support more cattle of any description than three acres of the very best meadow. However, dismissing all consideration of the after purposes to which this land stript of its surface might be applied, I shall content myself now with merely entering upon a consideration of the relative value of the swamp before and after the application of the artificial surface.\*

Before its application it was worth nothing, and all the labour which I have described as necessary for producing a bad crop of potatoes, oats, or rape, must have been expended upon it, and, therefore, I am justified in starting from that point when it was rendered capable of receiving the artificial surface. The acre of sacrificed land I estimate at £25, that is a pound an acre at twenty-five years' purchase. The lime, which, independently of the earth, would have been applied but not so beneficially, I leave altogether out of the calculation. The labour expended upon preparing the compost would have been fruitlessly expended, or perhaps five times the amount, in the vain endeavour to produce the same result. The capitalist then has expended £25 in the one operation indispensable to ensure the success of his undertaking. And what is the result? From the first year his land, which previously was not worth a shilling an acre, and which, without the addition of an artificial surface never would have been worth 5s. an acre, increases from

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(\*) I had three acres and a quarter of this description of swamp adjoining one of my lawns of about forty acres which fronts the house, and which was a great eye-sore. In my brother's life-time he lost many cows and a horse in this spot, added to which many more cows slipped their calves, and were rendered useless for the season, from sticking in the swamp. He took the round-about way of guarding against the evil, by making an immense ditch round the swamp, and which became a greater eye-sore than the original blemish. When I came into possession, I drained the swamp as I have described, pared it and burned it, and sacrificed about half an acre of the best ground in forming an artificial surface as I have described. In its original state it was not worth a shilling an acre; in fact it was convicted and imprisoned, as I have stated, for a nuisance; while you may now drive a waggon with a four-horse load over any part of it, and it is about the most valuable three acres and a quarter of ground that I have. I sowed French furze in the part I stript, and it has, from the second year, been worth any three acres of meadow; while the stuff procured from making the drains in the swamp, when mixed with lime, afforded me the very best top-dressing for upland.

year number one from 10s. an acre to year number four, when it will be richly worth a pound an acre or more. If then we estimate its value after the present mode of cultivating moors at 5s. an acre, and estimate its value after the addition of the artificial surface at 20s. an acre, we find that the capitalist has £12 a year for ever for his expenditure of £25. Now, for all these reasons I have come to the conclusion that the cultivation of waste lands may be a profitable investment for the spare money of capitalists, while it furnishes no field for the exercise of individual labour.

#### LARGE FARMS.

A vast number of ignorant landlords have been induced by as ignorant writers to adopt the large farm system very extensively, from the idea that the country was over populated and that the small cotter tenants were so many drones living upon the industry of the large farmer. When the demand for operative labour to work the now exploded machinery increased, the manufacturers worked heaven and earth to seduce the agricultural population from the natural to the artificial market, which had the effect of increasing this great national malady. The reform bill had a further tendency both in England and Ireland to multiply this grievance. The £50 tenants-at-will clause in the English reform bill induced landlords to throw three £20 farms into one £60 vote, while the desire of the protestant landlords of Ireland to withhold the franchise from the Catholic population induced them to knock several of those small holdings into one overgrown farm to suit the scanty protestant population, and which might be safely entrusted as a qualification to some good Protestant, and which he had not capital sufficient to cultivate. This is the mere political evil. I shall now show the evil tendency of this system generally.

Under the head "Waste Lands," I have stated that, under the small farm system, rent is a comparatively insignificant item, while to the large farmer it becomes one of importance passing all others. If a man holds four acres of land at a rent of £4 above its real value, he may, by a very little additional labour and attention, overcome the difficulty, whereas, if a large farmer pays £1 an acre over and above the real value for 1000 acres of land, he could not, by any possibility, according to the established rule for treating large farms, bear up against the overcharge. To him, every additional 1s. per acre becomes an additional rent of £50 a-year, and the difference between £1 an acre and 25s. an acre would amount to £250 a-year, and which increase,



if saddled upon the actual producing part, say 200 acres, or one-fifth, would impose an additional rent of £1 5s. per acre upon that quantity. Now I will explain it to you. I have allowed that a man holding 1000 acres of land in his own hands will cultivate 200 acres of that quantity well, whereas he will only cultivate it comparatively well; that is, well as compared to the treatment of the remaining 800 acres. It is impossible, however, even though he should be inclined to spend the required amount of labour upon it, for him to make it as productive as the same quantity of land would be in the possession of fifty husbandmen, occupying four acres each. The distance to which he is obliged to carry his manure, and the distance which he is obliged to draw his produce are ruinous, while neither of those difficulties stand in the way of the small farmer, whose humble cot stands in the centre of his little holding, not more than forty perches distant from the extremity of his allotment. I am quite aware that your large farm gentry will point to the Lothians, to Fife, to Norfolk, to Sussex, to Kent, and other agricultural counties, exclaiming, "Oh, you Goth! where have you been, not to have heard of our system of encamping our cattle, of thrashing upon the spot, of feeding upon the field, and of making our beasts carriers and depositors of their own manure?" To all this I answer, I have heard of it all; I have seen it all; I have canvassed it all. I have calculated all as a whole, and have come to the conclusion that it is all but the best mode of carrying out a bad system, while, as compared to that which I offer as a substitute, it cannot for one moment be upheld. The amount of capital expended in the maintenance of a sufficient number of horses to make this system perfect, must, of itself, without any other drawback, disadvantage, failure, or casualty, bring ruin upon the farmer, independently of each acre cultivated well, cultivated ill, or not cultivated at all, being liable to the same amount of rent. The capital disadvantageously expended for the carrying out of this system is enormous, and all, or nearly so, expended in a wrong direction. Sheep and black cattle are kept rather as substitutes for labour than as a source of profit. Horses supported where spade husbandry might be beneficially substituted, and responsibility undertaken in the mere hope of being able to live and secure an interest of 4 or 5 per cent. upon capital, after payment of rent and other liabilities.

As I shall devote a chapter to a consideration of the present extensive employment of horse labour, I shall here merely make a calculation of the additional rent that horse tax imposes upon the farmer who occupies 1000 acres of land. I am below the average when I set his stud down at twenty horses, and assign a man



to each pair. This allows that the horses are either engaged in ploughing with long reins, or in drawing a double horse cart. Now, if we estimate the man's wages at 12s. per week, it amounts to £31 4s. per annum; and which, multiplied by 10, makes £312 a-year. Then, if we allow £25 for the keep of each horse, it produces £500. If we add to this £5 a horse for wear and tear, for smiths' work, wheelwrights' work, and harness makers' work, and other incidental expenses, we find that this amount imposes an additional tax of £100. If we, then, estimate the value of his stud, his ploughs, his carts, his harrows, and other horse instruments, tackling, &c., at £1000, and allow him 10 per cent. upon this description of property, which is much lower than it is usually valued at, being perishable and to be insured, we have £100 additional. Now those four amounts consequent upon the keeping of twenty horses, make £1,012 per annum, and which sum imposes an additional rent of more than £1 an acre upon the 1,000 acres. These are the circumstances which are now leading to the very nice calculations as to the value of land; 2s. or 3s., or even 1s. an acre, upon large engagements, making a serious item in the large farmer's account, and being taken into calculation by him when estimating profit and loss upon the amount of capital he may have engaged. Thus, suppose he loses 3s. an acre and has £3,000 capital invested, that amounts to £150, or a loss of 5 per cent upon the entire. We are, then, to suppose that all manure made in the straw-yard, in the stables, and about the farm-yard, is to be carried, say to the distance of one-third of the extreme. The very cost per acre of putting out the manure at that distance will amount to more than double the rent, while I pity the poor clodpole who relies upon the system of penning, of folding, and encamping cattle for the purpose of cheap manuring. I pity him, because he must imagine that a sheep can apply its manure more equally and more profitably than he can; I pity him when I see a crop of half-scooped turnips after a thaw or wet weather, filled up with sheep's dung and earth, and which are obliged to be drawn as refuse or part waste, and certainly not as profitably applied as if wheeled in a barrow a distance of some forty yards, and measured out in sufficient feeds for the animals for whose support they are designed. Of course, in my advocacy of the small farm system I shall be compelled to enter hereafter into the further consideration of the disadvantages of the large farm system to the landlord, to the tenant, and to the working classes, while for the present I have thrown out such suggestions as, I trust, will lead those for whom I write to sound conclusions upon the subject.

## RENTS.

This is a difficult head under which anything new can be said. But as, in all other works on agriculture, the question of rent has been treated as a mercantile speculation, and as part of the erroneous system in existence, merely taking into consideration the value of land from a calculation of the current price of produce, and as not a word has been written on this subject with reference to the real value of the raw material in the retail or small farm market, this question, like all others, has been left untouched by those who have preceded me, as far as the interest of the labouring classes is concerned. Where I can admit the principle laid down by other writers, I am quite willing to do so, while I hope to draw very different conclusions from their premises. Rent is the return which the tenant undertakes to make to the landlord for whatever amount of land he holds under him, and I shall now proceed to canvass the present system of undertaking those engagements. There is an old saying that "a landlord of straw can break a tenant of steel." This superiority of the landlord class over the tenant class is occasioned by the great power which the landlords of this country possessed exclusively, prior to the introduction of manufactures, and from the fact of the landlords in those earlier times being law makers. Hence we find upon the statute book thousands and tens of thousands of the most repugnant laws, all framed for the purpose of protecting the privileges of the landlords to the great disadvantage of the tenant, and to the great discouragement of improvement. Their rights, known or unknown, are protected, whether recognized in things existing and developed, or in things existing but undiscovered. Under the title "Royalties," all that which lies hid in the bowels of the earth, and which may, if industriously sought for and advantageously used, become a source of individual remuneration and national wealth, is preserved for the use, not of the industrious seeker but of the idle owner; while, under the game laws and fishing restrictions, the birds of the air, the beasts of the field, and the fishes of the stream, contrary to God's ordinance, are preserved to the use of the landlord, so that, in due time, he may enjoy them. Add to these great powers, they have availed themselves of their position as population pressed hardly upon the available means of subsistence, so to hem in and enclose millions of acres of land belonging to the people as to set an increased value upon their monopoly in the same ratio in which population increased. It is not wonderful, then, having filled the statute book with laws protective of their own interest, that



*a landlord of law should be able to break a tenant out-lawed.* As I have observed above, I am quite ready to admit the existence of any injustice which does exist, and which other writers complain of, while, at the same time, I cannot allow myself merely to paddle in the shallow waters as they have done. On the contrary, I shall plunge at once into the very vortex, and dive to the bottom. I admit, then, the perfect right of other writers to take advantage of low prices and high rents as a means of exposing the fallacies of the present system, while at the same time I am justified in asking wherefore they have abstained from proposing a remedy. And the answer must either be that they were ignorant of any means of correcting it, or that in the only real mode they saw the dread of elevating the working classes. What avails it that a declaimer shall tell a farmer that there exists a condition on parchment that he shall pay forty shillings an acre for land, which, when he took it, produced wheat worth eighty shillings a quarter, while the same conditions are still in force and the fulfilment of which may be extracted out of his capital, though wheat may only be worth forty or fifty shillings the quarter. The tenant knows all this as well as the declaimer, and the very fact of reminding him of it without proposing a remedy is an insult to the feeling and the understanding of the injured party. What then is the remedy? The remedy consists in substituting a corn for a money rent, and in that alone, and now I shall proceed to establish the truth of this assertion. Let me first surround myself with precedents of the very highest nature, and I shall afterwards go into a minute calculation as to the advantages that society would gain by the change. Firstly, then, we find that the title of the church to the tenth part of the produce of the land, and after labour has been expended upon bringing it to maturity, is superior to the title of the landlord, and that this superiority is acknowledged by the law; that is, that, if a farm worth a thousand pounds fails to produce more than enough to satisfy the demand of the church, the tithe lord steps in and takes the all in satisfaction of his demand and in the honour of God, and leaves the difference, which is nothing, to be divided between the landlord and the tenant. Here, then, we have the principal of a yearly render, according to the value of the produce established by law, and although a composition and rent charge has been established as a substitute for a render of one tenth of the produce, yet it is but a law, and the very fact of making the law, which interfered with a title superior to that of the landlord, is at once an answer to those Legislative protectors of the rents of the latter, when they declare the incompetency of the House of Commons to interfere

with the existing arrangements between landlord and tenant. They have done so, as regards the church, and why stop short when the necessities of the state demand their interference as legislators between landlord and tenant. The answer to this is, because, as landlords and politicians, they hoped by an undue exercise of political power, to preserve their own rights by trenching upon those of the church. Again, if the government enters into a contract for a supply of anything produced from the land, they will do so but for a year, lest the change of prices from one year to another should have a prejudicial effect upon the bargain. If then we take the church and the Government as a fair representation of church and state, we find that both parties scrupulously guard themselves against unintelligible contracts—so much for precedent of the very highest order—and now let us ask what a manufacturer would say if a buyer went into the market and said ‘I will make a contract with you to supply me for the next seven, fourteen, or twenty-one years, or during the lives of myself and two of my children, with cloth at such a fixed price, with calico at such a fixed price, or with hard ware at such a fixed price?’ Why, as a matter of course the manufacturer would treat the offer as the ravings of a maniac, while the present system of leasing land for the like terms does not evince less insanity than the offer for the supply of manufactured goods for any of the same periods. Three very foolish notions have been circulated with respect to a corn rent; the one is the supposition that the whole render should be made in corn; another is the difficulty of establishing the value of grass land, or of light soils not calculated for producing wheat, and the other is the disinclination that farmers have to be deprived of the advantages to be derived from high prices and low fixed rent. The first objection is nonsense, inasmuch as the establishment of a corn rent would not imply the necessity of the payment of any portion of that rent throughout the Empire in one bushel of corn. A corn rent simply means, that if land is taken at forty shillings an acre when wheat is worth eighty shillings a quarter, the rent that shall be paid for the same land when the wheat is sixty shillings, fifty shillings, or forty shillings, shall vary in a like proportion as the price of produce. That is, that the rent assumed at forty shillings shall fall to thirty shillings when wheat sells at sixty shillings a quarter, and to twenty shillings when wheat sells at forty shillings a quarter, always taking into calculation a further reduction in favour of declining prices, because the same amount of labour should be expended upon the production of a quarter of wheat worth forty shillings, as upon the same wheat worth eighty shillings a quarter. The next absurdity is the supposed difficulty of



establishing the price of grass land, or light soils. This, however, is a monstrous absurdity, inasmuch as the price of wheat land in general regulates the prices of other lands, while upon the other hand, if there are three, four, fifty, or a hundred different classes of land, and if the relative value, according to current prices, of the produce of one class cannot be applied as a just standard for ascertaining the value of others, let each class in such case be valued by its own proper standard. The third assertion, that farmers prefer the chances of high prices and low fixed rent, would equally apply to those zealous and enthusiastic speculators, who imagined that they were ruined by the extinction of state Lotteries. Moreover, the question has never been fairly propounded to this class of farmers, while those, especially in Scotland, who pay a corn rent, are far more comfortable and better satisfied than their neighbours who pay in money. And for this reason, when prices are low they have the advantage and only pay in proportion, while, if prices are high, they have a four-fold increase, while the landlords are confined to the single advantage. Thus, suppose the price of wheat to be eighty shillings and the rent to be forty shillings, and the produce to be four quarters to the acre, in such case the landlord would receive £2 out of £16, leaving £14 to the tenant. Upon the other hand, suppose the price to be forty shillings a quarter and the rent £1—in such case the landlord would receive £1 out of the £8, while the tenant would receive only £7. It may be said that the whole of the land not under wheat would be liable to the same high rent when wheat was dear. So it would, and it would be worth it for two reasons. Firstly, because all other produce is in general regulated by the price of wheat, and secondly, the larger profit upon wheat when the price is high would enable the wheat land to bear a portion of the higher rent of the remainder.

I shall now proceed to a consideration of the justice, the necessity, and the advantages to be derived from the substitution of a corn for a money rent. Firstly, then, it is a step indispensable to the establishment of the "*fixity of tenure*," principle; a principle which means the holding of land in perpetuity, that is, for ever, so long as the tenant is satisfied to pay (for he will always be able to pay) that relative amount of rent annually which the price of his produce would impose upon him. I never have been able to assign any good reason why landlords should object to receiving their rents according to the prices of the produce of their land. It is, however, because it would be impossible, as well as unjust to both parties, to act upon the principle of "*fixity of tenure*" without first establishing the principle of corn-rent, that I advocate the system. It is always

a hardship upon a rising generation to find their comforts restricted and their rights interfered with, from the disinclination of our legislators and comfortable classes to interfere with things as they are, while it is not only an act of barbarism, but of cowardice, to allow existing abuses to remain from an apprehension of danger which might arise from their correction. The whole landed question, and indeed the whole commercial, manufacturing, labour, and money question, are so entrammelled and mystified by the laws of primogeniture, of settlement, and of entail, that he who attempts to write upon any one of those questions without embracing all, must either leave his subject incomplete or so complicated as to make his part-explanation unintelligible. For these reasons I shall abstain, until I have first made my readers acquainted with the principles of agriculture from any comment upon these several nuisances and shall proceed simply to a consideration of the justice, the convenience and necessity of substituting a "corn rent" for a "money rent." I have already explained how foolish it would be for a buyer to contract with a manufacturer for a certain amount of goods for a long period, and, "*vice versa*," how equally foolish it would be for the manufacturer to be tempted by a high offer to furnish the supply. Suppose, for instance, such a contract had been entered into previously to the introduction of machinery, and suppose the buyer had conditioned to give for thirty-one years the then prices for such articles as he should require, and that those articles should fall in price, as many articles have, to one-third or one-fourth of the then value. In such case would not the bargain be ruinous to him who contracted for the supply, and an injustice to the whole community. Well, then, what possible difference can be discovered between his position and that of a tenant, who, during the last war, when lands were raised to full double their value—say, when wheat was 120s. the quarter—contracted to pay an amount of rent, estimated by the then high price of wheat every year for twenty-one years, thirty-one years, forty-one years, or three lives, and without reference to the existing price of wheat during any single year of the whole period with the exception of the first. Suppose, as was frequently the case, that a tenant deposited a large sum of money with his landlord as security, and for which he was to receive the interest by deductions from his rent. Suppose for instance that he took one hundred acres of land at £2 an acre, and that he deposited £2000 as security for twenty-one years. Suppose then, that from the fall of prices, the value of the land fell to thirty shillings an acre. In such case, the landlord would hold the tenant to his bargain, deducting any deficiency in his rent from the capital placed in his



hands, so that in twenty years he would have appropriated to himself £1000 or £50 a year over and above the value of his land.

But let us now consider the justice of a corn-rent as regards the interest of all parties. Every bargain between man and man should be made so clear, so intelligible, and so defined that neither should be able to take any advantage of the other; and perhaps nothing has so led to the complication of law, and the prostration of the English character, as those advantages which the existing system affords to the wily to traffic in the necessities of the ignorant and less cunning portion of society. It is therefore of all things necessary that those abuses should be destroyed, and as the present system of leasing land for a long term at a fixed rent, stands prominently forward in the catalogue of abuses, I am thus pains-taking in making it clear to the most obtuse understanding. If a man buys a bale of cotton, he estimates its value by the price that the produce when manufactured will bring in the market; so with the shoemaker who buys a hide, so with the cutler who buys steel, with the carpenter who buys wood, and the tailor who buys cloth, and why not so then with the husbandman who buys land, for taking for a term of years is a buying for each year. I must explain to you one great stumbling block in the way of adopting a corn rent: It is this, the laws of settlement and entail have so hampered, clogged and embarrassed the owners of large estates, that they look to a *fixity of rent* as necessary to a fixity of payment of debts. With them a certainty for themselves and a certainty of that amount which shall remain as their fixed income after paying their fixed debts, is the one all absorbing thought. Thus fixity for them, means unfixing all those interests by which the rest of the community suffers so much injury and injustice.

Suppose we were to commence anew, would the system which now prevails be adopted? And if not, is its long continuance a sufficient or justifiable cause for still adhering to it? What can be more fair than that the owner of land should be satisfied with his fair annual proportion of its produce. His necessities, if not regulated by money contracts and barbarous engagements which can only be fulfilled by inflicting a great injustice upon society at large, would be met annually. If produce was dear, and as the price of produce would regulate all his household arrangements, if his establishment, in consequence of high prices, became more expensive, he would receive a high rent commensurate with those necessities, and his living would be as good, and his savings as great, though his expenses would be increased. Upon the other hand, if the price of produce is low, the expence of his household becomes com-

paratively diminished, while his mode of living is the same, and his savings relatively to the value of money in proportion. He pays his bills half yearly or yearly according to his contract with his trades-people, and at prices regulated by the then value of produce. But then, while the Jew, the mortgagee, the simple contract creditor, the mother, the brother, the sister, all stand in the way and demand a fixity of amount every half-year or quarter-day, he is not a free agent, and society suffers in consequence. Before the tithe composition bill was substituted for the payment in kind, the church lord participated with the tenant in every calamity, casualty, and disadvantage. Suppose, for instance, that all his corn was damaged so as to render it valueless, in fact, he had the power, if dissatisfied with the proctor's valuation, to serve the parson with notice to draw every tenth sheaf for his share. So with hay, if damaged or a bad crop, so with potatoes, and flax, and all other things. As I have shewn, then, that the title of the church to the "first fruits" of the land is superior to the title of the landlord, and as for centuries this system of paying the parson a corn rent prevailed, surely it cannot be considered unfair that the landlord, with an inferior title, should be bound by the same rule.

Perhaps the querulous may say—True, but this system of paying the church in kind has been abolished, and a fixed amount has been commuted for in lieu of it. To such I answer:—Firstly, that the change was made against the consent of the church. Secondly, that the change was made not so much with the view of altering the mode of payment, as for the purpose of making tithes an equable tax upon land, rather than upon any description of produce. I am now speaking of Mr. Goulburn's Irish Composition Bill, first established upon the voluntary system, requiring the sanction of the payers themselves before it could be adopted, subsequently made compulsory and which only applied to Ireland, and which has been further commuted for a rent charge chargeable upon the estate and payable by the landlord. Sir Robert Peel's tithe bill for England had a similar tendency, but then we must always bear in mind, that the church was opposed to those several alterations, and merely yielded to the necessity of the times, a convenient term used by landlords when they want to commit an injustice upon any other body. Well then, the necessity of the times now imperatively demands that alteration of the agricultural system which I contend for, and the whole people now require the landlords to disgorge some of that plunder stolen from the church and appropriated to their own uses, together with such a new arrangement as will restore to the people their fair share of that inheritance with which it has pleased Almighty God to



endow them, but of which rapacious man has deprived them. The "fixity of tenure" contended for on behalf of the people of Ireland just now, does not mean "fixity of tenure" at all, it simply means a contract between landlord and tenant, that the latter shall receive from the former compensation at the expiration of his term for monies expended in improvements. It leaves the whole question of duration of time, and of annual value, wholly untouched. Indeed, I will explain to you the folly of persons attempting to handle subjects of which they are wholly ignorant. From my thorough knowledge of the love of justice entertained by the working classes, I have come to the pleasing conclusion that they would not, if they had the power, violate the rights of others, and it is because I write for justice for all, as well protection for the rich under a good system as protection for the poor, that I feel myself called upon to expose the injustice which the bastard fixity of tenure principle now contended for would be likely to inflict upon the rights of others.

Suppose, for instance, that a wealthy capitalist took twenty, thirty, or fifty acres of land from a widow or a poor man for twenty-one years, upon the condition, that at the expiration of that term the out-going tenant, that is, the rich capitalist, should be allowed compensation money for his improvements. Suppose also, that he had expended an amount in those improvements which the poor man could not pay, in such case, he, the poor man, though bearing the dignified title of landlord, is wholly at the mercy of the wealthy capitalist. Now, just suppose a very possible case—suppose a dying father to have one hundred acres of land, which he wishes an infant son to take possession of and to cultivate upon attaining his majority, and that during his minority it shall be leased to a good and solvent tenant; well, it might just happen as I have stated above, that the father's desire, the mother's wish to carry it into effect, and the son's inclination to follow it, may all be frustrated by this new-fangled principle of "fixity of tenure," which allows one man to speculate to the disadvantage of another. I may probably be told that this new principle would have such details fixed for carrying it out that none of those objections could arise. Now, it is to those complicated details which are always required for carrying out a bad principal that I object, while I the more zealously contend for the establishment of my principle, because it would be impossible for the most wily, the most artful or cunning, to entangle it in the meshes of the law, or to thwart it by quibbling and nonsensical details. For all these reasons then I lay it down as an irrefutable conclusion that "fixity of tenure" is indispensable to the interest of all classes of society; while, without the substitution of a corn for a money-rent, it

would be an injustice against which neither of the contracting parties could protect themselves. Besides being an injustice to the landlord and to the tenant, it is a great injustice to the working-classes, inasmuch as doubtful tenure and fixed rents considerably interfere with their wages and employment, while the whole body of consumers are much injured by the limitation which the present system imposes upon production.

"A fair day's wages for a fair day's work" is a favourite maxim of mine, and one the justice of which is acquiesced in by all. Let us then have a fair amount of rent for the amount of land held; a maxim which, in principle, is as just and fair as that of a fair day's wage for a fair day's work.

#### HORSES APPLIED TO AGRICULTURE.

It would really appear as if that noble animal, the horse, had been sent into the world as a curse to mankind. There is no portion of society so depraved as that which is engaged in speculations respecting the powers of this noble animal. The horse appears to be the rallying point for every description of barbarity, depravity, obscenity, drunkenness, debauchery, and villany; and it is a melancholy reflection to think, that as civilization progresses, the barbarism to which this animal gives rise, increases. The daily practices resorted to in the betting world go far to make society depraved; while if we look for drunkards, cheats, and blackguards of the very highest order, we shall find them pre-eminent among the leading frequenters of the turf, associating with horse-dealers, horse-keepers, slang-jockeys, racing-grooms, and horse-butchers. So much I am obliged to say of this noble animal, who has been the innocent means of ruining thousands, and of bringing sorrow upon whole families; while the uses to which he is put as an agricultural beast, make him a competitor for manual labour to the great disadvantage of his owner. A horse, if kept for agricultural purposes, can be only valuable when constantly employed according to its strength, and when only employed at such work as man cannot, or should not, perform. The first breaking up of tough grass-land, the carrying of produce to market, the carting of manure, being tackled for draining purposes, and to work the thrashing-machine, are the only agricultural uses to which a horse should be applied. The difference between horse labour and manual labour is this—a farmer is always sure to have more horses than he requires, and they must be idle a great portion of the year, while he can suit himself with the exact number of hands he requires. The greatest objection



that I have, however, to the use of the horse is, that man can do its work more profitably. The large farm-system makes horse-labour necessary; while in the small farm-system it might be dispensed with nearly altogether, and, when it was required, the exact amount of work to be performed would be paid for without the necessity of keeping him for the year being imposed upon the husbandman. Add to these objections the amount of capital vested in these animals, and the alarming amount of produce that they consume, imposes a heavy tax upon the owner, and a great injustice upon the working classes. As, however, I shall have frequent opportunities of contrasting the relative value of horse and spade labour, I shall conclude my present observations under this head, and proceed to that which is minutely connected with it.

#### SPADE HUSBANDRY.

"When Adam delved and Eve span,  
Who was then the gentleman?"

The spade and the spinning wheel are two of man's oldest and best friends, and he has derived but a poor benefit from the substitution of the plough and the "rattle-box." The great disparity which all modern inventions and improvements have created in the human family, have each and all tended to the centralization of wealth and power, and to the prostration of industry and character, while those who would re-harmonize by destroying those unholy distinctions, are designated by the foul names of "*levellers*" and "*destructives*." There is no sight, however, which can be presented to my eyes so beautiful, so cheering, so natural and becoming, as that of the husbandman tilling the ground for his own and his family's sole use, behoof and benefit. When I see a man with his foot upon his spade, I think I recognize the image of his God, and see him in that character which even the Malthusian deigns to assign him—A MAN STANDING ON HIS OWN RESOURCES. He honours himself, respects the laws that protect him, and loves the God who has been so bountiful as to create the means for yielding him subsistence. He looks upon his parish church as a sanctuary, and pants for that day of rest, when, after six days' toil, he may offer up thanksgivings in it for the blessings that he enjoys. To him every day is a laughing holiday. In his own little holding he recognizes the miniature of nature. When he leaves his castle in peace, it is ever in his sight as the repository of all that is dear to him, and when he returns at noon,



his eyes are gladdened, his feelings are excited, and his heart bounds, while receiving the welcome, the attentions, and caresses of his wife and darling children. What cares he for that splendour that is beyond his reach, those luxuries for which he feels not the want, or the enjoyments of those whose vices he would not imitate. If he is a leveller, he would take virtue for his standard instead of vice. He at once becomes a civilized being, panting for knowledge, in order that he may stand distinguished in that community of which he is a free member. He is happy because he is contented, he is contented because he is free, and satisfied with that freedom which does not trench upon the rights or liberties of others. Such a being do I pant to see, and such a one are the resources of his country capable of making him, and shall we not then continue to struggle even to the death for so desirable an object? His vices are consequences of oppression and mis-rule, and not characteristics of his nature or voluntary acts of free-will. Let us then, in the name of all that is holy, endeavour to place man in his right position.

Before I begin to discuss the relative merits of the plough and the spade, I shall, according to a promise made in one of my letters upon agriculture, relate an experiment that I made upon a large scale. It was this:—There is a very handsome field adjoining my house and containing about fifteen acres of land: this field, from its proximity to the house, was kept for many years in meadow, until, in fact, it became high bound, tough, and almost barren. I was one day walking through the field with Dr. Longfield, who was then professor of Political Economy as well as a fellow of Trinity College, a man with a mind far surpassing anything I have ever met in my life, one, in fact, who would know everything that could be known, and who, though not a practical farmer, was thoroughly acquainted with the theory of the science. In our walk he kicked two or three times at the surface, and said "Now, what can you do with this field for the next five years? Its run out?" I replied, "You shall see." Upon the following morning I put a pair of ploughs to work and turned it up. As soon as the sod was rotted, I employed a great number of men and dug it well; I allowed it to remain in ridges during the winter, and upon the first fine weather in March I employed about a hundred hands. I set them to dig as you would dig a kitchen garden, making the mould as fine as that used in flower pots, while women followed the spades with baskets, picking up every root and fibre. When the whole surface was as level as a carpet, I laid the field out in beds of twelve feet wide, and furrows eighteen inches wide, with garden lines. I then gave the whole a mere

sprinkling of compost, that is, of old earth and lime mixed. I then sowed the seed myself (barley) and set the men, two to each furrow, one digging and the other shovelling and covering the seed. It would have taken a plough with one horse and a man to sow an acre, while four men, two with spades and two with shovels, performed the work, that is, sixty men completed the sowing of the field. When the farmers in the neighbourhood heard that I was going to sow barley in such a field, one in which barley never grew before, they declared unanimously that I was stark staring mad. Spring advanced, however, and all those who came far and near for legal advice, as well as the neighbours in passing, gazed in astonishment. Summer arrived and my field presented more the appearance of a large yellow carpet than of a corn field. The weeds which lay smothered for years had all come to life and I was well laughed at. I set all hands to work however, and did not leave one yellow spot in the whole fifteen acres. In harvest time the crop was literally a show, which people came from various parts to see. Every grain being sown upon a level surface, and each having exactly the same amount of covering, all grew to pretty nearly an equal height. The harvest, as is very usual in the south of Ireland, was wet, what the farmers call "catching weather." As soon as the crop was ripe, I took advantage of one thoroughly fine day, in which I reaped, bound and stacked the barley all within it; a thing which I believe never was attempted before, because barley in general requires two or three days on the swarth before it is bound, and two or three days more to season its "stooks" before it can be safely stacked. The harvest weather broke, and nearly all the barley in the country was lost from the tedious process in saving that crop. The result was that I got 1s. 4d. per stone, the very highest price, for my barley, whilst others either lost the crop altogether or sold it for half price. Of that crop I made £12 10s. an acre. As soon as the crop was off I dug a furrow a foot wide and a foot deep in every alternate bed, and carted the earth to the farmyard. Even the success of the barley did not save me from the reiteration that I must be mad now for "taking the field away." I then prepared the whole for potatoes, and again I outraged their feelings by selecting the very largest potatoes that I could buy for seed, and planting them whole. I made my drills more than a yard asunder, opened them very shallow and put the potatoes in, leaving three feet between each. I then covered the drills up, and in proper season earthed them with the spade instead of with the plough, not allowing the horse to tread down and break every second plant. At the time that I was digging those potatoes, Mr. Waller, who was then as



a barrister engaged by the Liberal interests to assist in the registration of votes, was on a visit with me. He resides in the very richest part of the county of Limerick, the land of which is not surpassed by any in the three kingdoms for richness. My steward, being proud of the crop, requested the Limerick gentleman to go and take a look at what we could do with light soil. He did come, and confessed that in all his life he never saw any produce at all approaching it. The process could not be called digging, it rather resembled that of shovelling potatoes out of the heap; many plants yielding a large basket of the largest potatoes, while each man could dig more in the day than six could dig of an ordinary crop. That crop of potatoes, at three-pence a stone, was valued at £40 an acre, and it was below the mark. The manure that I used was principally what had been taken out of the barley stubble after having been put into the cow-houses, sheep houses, and working horse stables for a certain time. I then gave the ground twenty barrels of lime to the acre, each barrel costing two shillings, and sowed it with wheat. I sold ten bags of wheat of twenty stone to the bag off each acre, and for which I got the very highest price, £1 10s. per bag, that is one shilling and sixpence a stone. In the spring, when the weather was dry, I sowed clover with the wheat, and during the two following years it produced two as fine crops as could be seen, leaving the field, after "taking it away," worth double the rent that it was when I commenced.

Let us now see what was the profit and loss upon this speculation. I sold the barley for £12 10s. an acre; the potatoes were worth £40 an acre. I sold the wheat for £15 an acre, and the two years' clover was richly worth £10 the acre, making in all £77 10s.; and if we deduct the value of the straw, and allow £27 10s. for the rent, labour and seed for the three years when it was in tillage, it will leave £50 per acre, or, at six per cent., the usual interest of money in Ireland, it would yield £3 per acre for ever, even if the field was "carried away;" while, in fact, it was worth twice as much after the process that I have stated as it was before. I do not think that I could furnish a better illustration of the respective value of rent and labour. Indeed, I feel convinced that the man who occupies just as much ground as he can possibly till by his own labour, would be able in three years to purchase the fee simple of that quantity, no matter what the amount of rent might be.

The superiority of spade culture over all other modes is clearly established by the perfection to which market gardens are brought, as compared with the same quality of land under



the very best system of plough husbandry. The following are some of the advantages which the spade has over the plough. A spade can be had for a few shillings, while a plough and a pair of horses, besides the cost of purchase, will stand the farmer in fully one hundred pounds a year. The spade will find its way any where, up hills and between rocks, where a plough cannot be used. It can be used at times when a plough cannot; but even these advantages are insignificant when their relative effects upon the soil are compared. For instance, I have stated that I was enabled to save my barley cultivated by spade labour in one day, whereas it would have been impossible to do so, had it been produced by plough cultivation. And here I will consider an advantage to be derived from spade cultivation which I have not seen treated of in any other work. It is this, and by which I was enabled to save my crop all in one day. If you prepare your field ever so well for the seed, if you make the surface as level as a carpet, yet will it be impossible with the plough, or even by a drilling machine, to give it that equal covering which you can with the spade, some of the grains will receive six inches of covering, some five, and so on, whilst some are left close to the surface. Now it is this circumstance which leads to the loss of a great portion of the crop and to the necessity of allowing the corn when reaped to remain in swarth at the mercy of the weather. Those grains nearest the surface will come up first and so on, those with the heaviest amount of covering making their way up last. This inequality of growth is always visible in a field sown with the harrow or under a plough. In harvest every man must have observed the uneven manner in which crops generally ripen, a large portion remaining green and unripe while the major part is, as they term it, "falling off the head;" and to which the backward crop must be sacrificed. Now, if the farmer attempted to stack or draw such a crop before the green part had been sufficiently seasoned, the consequence would be, that the whole would take fire. Upon the other hand, when the surface is made even, the seed sown even, and all equally covered, and the seed not disturbed or buried by the horses' feet, the whole will come up even as I have described and come simultaneously to perfection. It is true that many writers dwell upon the necessity of pulverising the earth well, but how can this be so effectually done as by giving a clod a slap with the back of a spade. They also attach much importance to ploughing in fallow lands, when weeds begin to shew themselves, but how can they be so successfully destroyed by a plough as they can by a spade? The plough will leave them near the surface, and its imperfect mode of administering the

proper cure imposes the necessity for its frequent use, while a spade will turn them upside down, burying them to rise no more; and, for this reason, one good digging is worth three ploughings and as many harrowings. I am aware that the almost impossibility of large farmers employing a sufficient number of hands to carry out the principle of spade husbandry will be urged as a reason against its adoption, but it must be borne in mind that that is my very greatest objection to the large farm system—viz. that it compels a man to act upon an erroneous plan in compliance with an erroneous system, while upon the other hand it is a great injustice to those who are told that they must either starve or clamor for the right to receive their breakfast, dinner and supper from some foreign country.

I have directed attention to the condition of market gardens, and perhaps I may be fancifully asked if I would make market gardens of all England; and if I was asked my answer should be—Why not! and would to God that we had a sufficient amount of population to drive us to the holy necessity. When we speak of market gardens we must always bear in mind, that altho' vegetables only appear to be produced there, that yet every root grown is capable of being manufactured into beef, mutton, pork, leather, fur, cloth, wool, milk, butter, eggs, and even horse flesh, and that, after all, a market garden is but the most perfect system of cultivation. In fact, our best cultivated farms now are, to what the land might be brought to, just what the raw and undressed flax is to the finest cambric that can be manufactured from it. A landlord has no objection to receive £30 an acre for market garden ground, which, if a great distance from town, may not be worth a pound an acre, while its distance from the metropolis would not at all stand in the way of a labouring man making it just as profitable to himself. It is true that ten tons' weight of cabbages, of potatoes, parsnips or carrots, may not fetch as much as beef as they would as vegetables, and that it would be difficult for a man in Leicestershire to send the vegetables to the London market, but then, according to the Norfolk plan, he might make the sheep or the ox carry them there in beef or mutton. When a town or city is to be built the founders and projectors do not attach so much importance to the quality of land in the neighbourhood of the site, as they do to water, and especially a navigable river. and yet we find that without the assistance of the plough the most barren soils in the neighbourhood of a new congregation are very speedily converted into fertile gardens by spade cultivation.—In fact a man with a spade and a hut to cover him, and as much land as he can cultivate by his own industry, is a



capitalist, capable of discounting his health and strength as a means of independence.

I have very frequently directed the attention of slovenly farmers to the lumpy condition of their land, and they have told me that the clods, when rolled or bush-harrowed in spring, would afford great nutriment to the growing crop. This is all folly. The earth contained in those clods never reaches the plant at all, whereas, had it been used as nutriment in proper time by applying it to the seed, it would have had a beneficial effect. Indeed, so ignorant are some farmers, that they would endeavour to convince you that too much pulverization was injurious to ground. I wish that some of those clod-poles would go to some of my gardening neighbours and tell them so. I have very often taken up a clod as large as a goose's egg, and asked the farmer in whose field I happened to be, of what use that clod was? The answer has invariably been, it would be broke in spring, and when I have crumbled it between my hands, rubbing it well, he has been struck with astonishment at the quantity of fine mould that he allowed to remain inactive.

For all these reasons, then, I am a great advocate for adopting the system of spade cultivation. I advocate it because it is within the reach of every man, and can be used by all men. I advocate it in preference to the plough, because the plough, with its necessary accompaniments, is a thing out of the reach of 9,999 in every 10,000 of the working classes. I advocate it because it is wholesome labour, natural labour, and profitable labour. I advocate it because so long as the land is placed out of the reach of the poorest man, so long will that class-inequality, so destructive of human happiness, continue to exist. I advocate it because I feel firmly convinced that, by the adoption of the small farm system, to which it is applicable, and by that alone, can the poor of this country be saved from the force of tyrants and the fraud of cheats. I advocate it because I feel that there is a point beyond which human endurance cannot go, and because I believe we have arrived nearly at that point. I advocate it as a means of turning all the vast inventions and improvements in the arts and sciences of latter years to general instead of to class purposes. I advocate it as the now only means remaining of arresting a civil war, and of sparing human blood.

#### MANURES.

How very minutely these apparently different subjects are mingled with the grand question of labour. We are actually



inundated with theories upon chemical processes for producing manures, while labour, if unshackled, would be an admirable substitute for all, or, if required, they would be a great auxiliary. I have always asserted, that the richest of all manures was that to be found in the arms of a man, and I shall proceed in the outset, to prove the truth of my assertion. It has been a mystery for many years how the poor of Ireland, without a spot of land or without work, can contrive to live, and yet it is a problem very easily solved: they live upon their own labour, without renting land or being hired. The process is as follows: they gather together as much wild earth as they can come at; or, perhaps, buy an old ditch or a lump of wild soil; or, if they are partially employed with a small farmer, they receive those advantages which are called privileges: that is, they are allowed to take a quantity of wild earth, earth which if put out upon land in the state in which they get it, would sterilize it for three or four years. It is as yellow as a guinea, and all its fertilizing qualities have been destroyed by secretion from atmospheric influence for God knows how long. In this wild state, they draw it into their little yard about October or November, and there they keep digging it, and digging it at every spare moment, until, by dint of labour, they bring it to be excellent manure, and for which they get a sufficiency of ground from a neighbouring farmer to put it out for potatoes. And after it has produced a right good crop of potatoes for the labourer, it will produce a crop of wheat and a crop of oats for the farmer. The wheat produced upon such lands is always the best upon the farm, and for this reason: because, while the farmer uses his own sparingly, he will see that his poorer neighbour's is profusely administered. If a poor man has good chances, he will make by this means as much manure as will grow an acre of potatoes. Indeed, if his whole time was devoted to it, and if he could get a sufficient quantity of wild earth, he would make enough for five acres. Allowing him, however, to make enough for one acre, and that acre to be worth £10 10s., let us see how he stands.

The Irish labourer who can earn eight-pence a day for a constancy becomes a rich man, and in ten years, is able to over-bid his neighbour for twenty or thirty acres of ground and to stock it, always procuring an old horse to begin with. Allowing a man, then, to be in constant employment at eight-pence a day, and to work every working day in the year, say 300, he can earn but £10, whereas the poor man, snatching an hour now and then to turn wild earth into manure by his labour, can earn ten guineas in the year. So far, then, we may accept it as a truism, that artificial manures are for the most part but the

best substitute for labour, whereas, I contend, that every acre of usable ground has within itself the means of producing a sufficiency of the very best description of manure. I shall here speak generally of the system of making manure that I practised myself, and I shall enter more minutely into the subject, when I come to lay down rules for the management of small farms.

The plan that I adopted, then, was this. Before I broke up a stubble-field, I took trenches, say twenty feet asunder, out of the field, and, as I required it, I drew it into the houses in the following manner:—Say, on the first of the month, I wheeled with a wheelbarrow into the cow-houses, sheep-houses, and working-horse stables, a foot thick of earth, which was littered over with straw for the cows and horses—the sheep preferring earth to any other bed—on that day week these floors of earth in the cow-houses and stables were turned upside down with the spade, while that in the sheep-house was scratched over every morning to keep it dry, as the wet would give the sheep the foot rot and injure their wool; on the following week, that is, when the first floor had been in for a fortnight, I covered it, after taking off the litter, with another floor of equal thickness. After that had remained there for a week I turned it up, and during the following week, that is when all had been there for a month, I wheeled it out, and made it into a heap, shaped in the best way to keep the rain off as much as possible.

An old ditch not worth a farthing the thousand loads, except for this purpose, was just as good as any other. As, then, it is most likely that several gentlemen in my neighbourhood, and those of the farming class, will see this account, I think I may appeal to them with confidence whether or no they ever saw so large a quantity of such good manure ever produced by ten farmers. I have some years manured as much as thirty acres with this description of manure, and it invariably happened that it produced better potatoes, wheat, barley, vetches, rape, and grass than any other description of manure whatever, while it gave the advantage over all others of adding to the surface and producing a larger effect upon the ground. The potatoes produced from this manure were larger, heavier in proportion to size, and much drier, than those produced by any other manure, while the grain of the wheat was larger, brighter, heavier and thinner skinned. In short, I discovered that, however horse-dung or cow-dung may, during the time of fermentation, have a quicker effect upon the growing crop, yet, when in its ripening state it began to suck hard and to require more nutriment, then the fermented manures failed, and



the superiority of the solid was discovered. If you take an acre of ground as nearly equal in quality as possible, and top-dress one half with the best stable-dung and the other half with manure made as I have described, its superiority will be then discovered. That top-dressed with horse dung will spring up in the commencement and grow longer, but when you come to the scale you will then find the difference, as that produced by the manure made in houses will weigh at least one-third more than that produced by the horse-dung, while the after-grass will be worth three times as much. Now this is all practical knowledge after frequent experiments, and is the best answer that I can give to those wild and unmanageable theorists who are always contending against the possibility of procuring manure enough to grow corn enough for our own people.

When I come to lay down my rules for the practical management of small farms, I shall state to the wheelbarrow-full the exact amount of manure required for each crop, and the mode by which it is to be procured. I am not to be supposed to be an enemy to any description of manure that can be made serviceable for agricultural purposes; but what I contend is, that all chemical preparations are but substitutes, and bad ones too, for labour, which, if free and properly apportioned, would always command more than a sufficiency of food for the land, which is manure, without being obliged to have recourse to the chemical processes, which are physic. Let any man vary those new inventions as he may for five or six years, and at the end he will discover that they are but so many alteratives, annually losing their effect, until, at length, he will be compelled to give up the system of dosing and quacking, and of returning to the solids. I know that your large farm gentry will say, "Pooh! who could manage 1,000, 2,000, 3,000, or 7,000 acres of land, not at all an unusual undertaking, without having recourse to those stimulants?" I would wish those gentlemen to understand that that is another of my great objections to large farms; the very evil of being compelled to have recourse to the ruinous system of physicking land that they are not able to feed; whereas, again I say, if the 1,000 acres were divided into 250 farms of four acres each, the occupant of one of those allotments would not give you two-pence for all the chemical manures that you could bestow upon him, having a good substitute in his labour. Another very great difficulty which stands in the way of large farmers making a sufficient quantity of manure is, the want of a sufficient number of out-houses for that purpose, and the necessity consequently imposed upon them of exposing their manures to the rain; whereas, if there is one object which should more arrest the



attention of the farmer than another it is that of keeping his manure as dry as possible.

When I commenced farming, I was myself strongly possessed with this difficulty of manuring mania, and was obliged to have recourse to fallowing, and paring and burning, because I had not thought of the practice of making manure in the houses as I have described; and, indeed, if I had thought of it, the knowledge would have been of little value, as I had not then a sufficient quantity of out-offices to put it into practice. At that time I held nearly 100 acres of land on my father's estate, rent free, and, finding the want of manure, and the great expense of drawing sea-sand sixteen or eighteen miles, and which merely gives a colour to the grain of one crop, I set about some new invention, and, after a little thought, I decided upon trying my hand at ashes. I commenced a fire on the 24th of June, and kept it burning till the latter end of October. I paid one man, Richard Donovan, six shillings a week, being two shillings over the usual rate of wages, to attend to the fire late and early. The summer happened to be the finest that we had had for many years, and the result of my experiment was that at the end of October I had more ashes than I knew what to do with; but which, however, were very valuable. I refused £70 for one heap, and £25 for another, from two neighbouring farmers. The process that I pursued was this: I selected a swamp of very deep soil, with a peat surface, and a kind of yellow clay substratum. I dug a large number of sods, and a quantity of the undersoil, and exposed it to the weather to be dried before I commenced my fire, as the great art of succeeding in such an undertaking is to have a sufficient quantity of earth and sods well dried to insure you against failure, till the heap arrives at that size and strength that you may defy bad weather. When I was thus prepared, I lighted my fire, and fed it as it required for the first week, by placing a row of dried sods around the base, and covering it with dried earth to the top. When the fire was about three weeks old the process of drying became unnecessary, as it was impossible to quench it. I have seen it covered of a wet evening with sods, and undersoil thrown up as they were dug, with the water dripping from them, and all was ashes in the morning. As I never was, and never shall be, a great friend to turnips, I put the greater part of the ashes out for wheat and potatoes, and some upon grass, and I never saw finer crops than it produced. The wages paid for making the ashes were six shillings a-week, for about seventeen weeks, or £5 2s., and the value of the ground consumed would never have been worth more than £1 an acre per annum, and I did not use more than the sixteenth part of an acre, which,

if purchased at twenty-five years' purchase, would amount to £1 11s. 3d., making the whole expense £6 13s. 3d., while the ashes were richly worth £200; the difference being all labour.

Much ignorance prevails upon the subject of manures. Stable dung, whether good or bad, has always assigned to it a like property. The farmer who feeds his horse upon vetches, grass or hay, supposes that his stable dung, because made in a stable, is just as good as his neighbour's whose horse is fed upon hay and oats; whereas there is as much difference as there is between the light of a bude-light and that of a halfpenny candle. So with those graziers who feed cattle upon turnips, they suppose that the manure produced is as good as manure produced by cattle fed on potatoes; but never was there a greater mistake, the latter being very far superior. I have thought it necessary to enter largely upon this subject, in consequence of the writers upon political economy in agriculture having recently mixed up the subject of manuring land with the question of free-trade; their argument being, that an extensive system of grazing is indispensable as a means of keeping up the wheat crop of this country to something about its present deficiency, and that the encouragement given to the importation of live stock will materially tend to diminish the quantity of manure necessary for producing even the deficient supply, and thereby increasing that deficiency every year. This, however, is but an additional blunder of the blundering political economists, and is an evil consequent upon the system of large farms, and can be only remedied by substituting that of small farms. I never can let slip an opportunity of exposing the fallacies of the free-traders, if, indeed, their blunders deserve so mild a name. The reason, then, why those gentlemen contend so loudly for the necessity of large farms and extensive grazing as a means of producing a large quantity of manure, is, because they know that large farms are managed by horse-labour, while the expense of a grazing farm is insignificant when compared with the same amount kept in tillage, and from these facts they come to the conclusion, that large farms and grazing throw the agricultural labourers out of employment, and drive them into their slave-market as competitors with the already surplus pauper population.

## DAIRIES.

Having now disposed of my subject as far as relates to waste lands, large farms, rents, horse labour, spade husbandry, and manures, I shall proceed to discuss the question of farming, treating of each branch under its own proper head; firstly, in order to lead my readers to a knowledge of the most profitable application of the several crops; and I shall then treat of the mode of producing those several crops, and compare their relative returns for the amount of labour expended in their production.

The cow, then, being an indispensable to a mother in labour, to a child in arms, to the infant growing, to the adult in process of formation, to the labourer at work, and to the aged in declining life, I treat of this domestic animal firstly. I pity the man who has not a cow, and who is obliged to wait till driven by sickness to the necessity of sending to a neighbour for a half-penny or pennyworth of the most wholesome, the most nutritious, and the most grateful beverage. It is a melancholy thing to see an able and willing workman reduced to the necessity of feeding his little children upon unwholesome slops, as a substitute for that, of which, had he fair play, he could have an abundance. No labouring man can say that he is as he ought to be if he is not possessed of a cow; and it is because I propose that a sufficient stock of that useful animal should constitute the staple of the small farmer's reliance, that I make the cow my first consideration. I propose, that every man occupying four acres of ground shall be possessed of four cows as the main stock of his establishment. As, however, I shall enter minutely into the mode of treating the cow, as well as into a minute calculation as to the return to be expected from that treatment, I shall now proceed, under my present head, to treat the subject generally.

I have derived my knowledge upon this subject from practical experience, having not only had a dairy myself, but, from the circumstance of living close to a near relation, who, for many years has made a large dairy of from thirty to fifty cows a great hobby, to the process of managing which I paid the very greatest attention, and which he has brought to greater perfection than any other person that I know of. Indeed, as any digression, which will serve my purpose will be pardoned by the reader, I may here state, while speaking of that gentleman, the fact that he has gone farther in establishing the value of a plot of ground to the working man, than all the landlords and practical writers in existence. He is an immensely



large landed proprietor, and the best landlord in the country. In every one of his leases he inserts a condition, that the farmer shall allow every labourer he employs so much land rent free, a house of stipulated dimensions, and always kept in proper repair; and the result of this plan is, that the labourers of his tenants and their families are as comfortable as the tenants themselves.

In order to make profit of a dairy, the farmer must always have a sufficient number of cows to make a certain quantity of butter, say, a firkin, or about sixty pounds as nearly as possible, at one churning, and this is one of the reasons why I have thought proper to assign four cows to each small farmer. It is impossible that all could carry on the trade of selling new milk and fresh butter, and, therefore, in speaking of a dairy, it must always be treated as a manufactory for the wholesale market, rather than as a means of supplying the retail demand. In many parts of Ireland, the system of large farms is carried on by the same farmer cultivating extensively, and also keeping a dairy. This system is practised in many parts of England as well, to a most ruinous extent, and, from calculations made from such sources, no fair conclusions as to the profits of a dairy can be arrived at. From twenty to thirty cows, according to the size of the farm, in general constitute the dairy. These animals are kept upon the lands, let out to rest, not half fed, and, being perished and starved in winter, just when they require attention and care, the cost of renewing the stock is excessive, while their produce, besides being poor in quality, does not amount to one-half the quantity which the same number of cows, if properly fed and attended to, would produce. And yet a dairy of this kind is the principal reliance of the farmers for paying their May rent. An Irish farmer generally pays his November rent from the sale of his harvest, and he pays his May rent by raising money upon the supposed produce of his dairy for the coming half year, by obtaining money at the rate of forty, fifty, sixty, and even seventy-two per cent. from the butter merchant, to whom he is in the habit of selling his produce. It would not, then, be fair to make wholesale calculations upon so imperfect a system, while, there being no retail market for milk and butter in the country districts in Ireland, those who cannot afford to keep a sufficient number of cows to make the quantity required for the wholesale market at once, must be ruined. Let me explain this to you familiarly. If a poor man has two or three cows badly fed, he will expect to make somewhere about ninety-six pounds weight of butter "under each cow" in the season. He attempts to make a firkin, or sixty pounds, for the wholesale market, and which, if made

at once, would sell as first quality, and fetch, say £2 5s. or at the rate of £4 10s. per cwt.; whereas, it will take him six or seven weeks to make the required amount, adding seven or eight pounds at a churning to the stock, which, when ready for sale, has as many colours as a rainbow, and as many different smells as a farm yard, and, when he takes it to market, instead of getting first quality price, or £4 10s. the cwt., it is bored, smelt, and tasted, and branded as a "bishop," a title given to butter which does not merit that of 1st, 2nd, 3rd, 4th, or 5th quality, and which are the several classes that that article is sold under. For this he will receive about fifteen shillings, or at the rate of £1 10s. the cwt. instead of £2 5s., or at the rate of £4 10s. per cwt., the price of first quality; thus, for want of a retail market, and not having a sufficient number of cows to make the required quantity for the wholesale market, he loses two-thirds of the price of the article.

I shall now lay down some practical rules for the management of a dairy. The cow being the first requisite in the establishment, I shall describe what she ought to be, and how she should be treated. There are as many opinions as to the cow most preferable as there are different breeds, I shall, therefore, state the qualities for which they are respectively preferred, and leave the reader to his choice.

The Ayrshire is now coming into very extensive use in all descriptions of farms, whether light or heavy; their recommendation being their beauty, and that they thrive better than most other breeds upon light soil and scanty fodder; their milk, however, is not to be compared to many others, either for quantity or quality; to the Hereford for quantity, or to the Devon or Alderney for quality, or to the common Irish or English cow for either one or the other. This breed has been pushed of late years amongst some farmers who would be better without them, especially by the Duke of Devonshire and his friends, more I presume, from the state of perfection that they have been brought to by those gentlemen upon their rich domains, than from the intrinsic merit of the animal. The Ayrshire, however, is a good cow for a large dairyman, as she has that property much prized by them, viz., if she misses for milk, she will turn out well for the butcher, a consideration, however, which never should weigh with a man having three or four cows.

The white-faced Hereford, is, perhaps, generally speaking, the most milchy, and has the property of fating at an earlier age than any other breed. I may be allowed to state my own preference, and I certainly give it to the Hereford, above all others. I have had a dairy exclusively of Hereford cows, and they averaged over twenty-four quarts a-day, three or four of



them giving as much as sixteen quarts at a meal, and of average richness; richer, I think, than the Ayrshire, but not so rich as the Devon or Alderney, or the common Irish or English. They require good keep, and will give good produce in return, and I have found them of all breeds the most gentle. There is one peculiarity, however, belonging to the Hereford, and from want of a knowledge of which I lost three of the very best of my cows when I first got them. It is this, if they make a very large show about three weeks or a month before calving, they should be moderately milked, otherwise the teat becomes diseased and it is impossible to bring them to their milk after calving, in fact, they can't give a drop, as the pipe is stopped up, I presume from the milk which ought to have been drawn first corrupting, and then turning to a hard lump. I have tried to recover this neglect by putting the calf to them, but all to no purpose.

The Devon surpasses all others in the richness of her milk, but is far inferior to almost any other in quantity.

The common Irish cow can scarcely be surpassed in value. Some of them will give from twelve to fifteen quarts at a meal, upon keep far inferior to what any other breed requires, while for richness her milk is much beyond the average quality.

The short-horned is a breed coming into extensive use, and I am sure I can't tell why, if it is not that their size renders them valuable to the grazier, after they shall have served their time at the dairy.

There is another breed which deserves notice, the thorough bred Scotch, generally of a black and white colour, large, of beautiful symmetry, with head resembling a buck, flat in the forehead, and very pretty small horns. I know of no cow superior to a thorough bred Scotch cow, but I regret to say that they have become very scarce of late years, the Ayrshire having supplied their place.

There is another breed also that deserves mention, I mean the little black Galloways that are to be found in the southern counties of Scotland. I have a great fancy for this breed, which I would distinguish by the name of the poor man's cow; they are very small, of beautiful symmetry, and have no horns, which, in my opinion, is an advantage not to be overlooked. The owners tell you that they would live upon the road, which is a mere figurative mode of telling you that they will live upon the most spare keep. They give very good milk, in some cases as much as ten quarts at a meal, or twenty quarts a-day, are easily fatted when dry, and will live certainly upon one-half of what a Hereford, Ayrshire, or short horned cow would consume.



The common English, like the common Irish, when good, in my opinion surpasses most others in this climate, and as a native of the soil is, perhaps, the best suited to the country.

The next direction, then, that I shall give to the farmer is, how to choose his cow at a fair. He should look well about him, and make up his mind not to be captivated by the first that takes his fancy, always bearing in mind that, if taken in, his first loss is the least, as a bad cow will entail a daily injury upon him. The head, then, should be well looked at; it should be fine and rather flat than round in the forehead, the countenance mild and gentle, the horn small and of a rich creamy colour, well set, and not cocking; the neck fine, thin at the mane, and a fall of loose flesh underneath running towards the breast; the tail and limbs should be fine, the hind quarter wide, with a good space between the hind legs, and the udder spreading up towards the chest rather than hanging down between the legs; the teats, instead of hanging down, should project, pointing as it were towards the fore-legs, great attention being paid to the size of the two back teats which are never milked, a cow usually having six teats. I have seldom seen a cow of this form that had not the two back teats unusually large.

I have now spoken of a cow ready for milking, and with the presumption that no man would be mad enough to buy a cow that has been stocked for sale, that is, a cow which has not been milked for, perhaps, twenty-four hours; a system as foolish as it is cruel, and the practice of which has destroyed many a fine animal, and has injured many an ignorant man. It will be a long time before a cow that has been driven some distance with a bursting udder can be brought to herself, while she seldom thoroughly recovers for the season, and, therefore, none but the hopelessly ignorant can be injured by this cruel practice. I have frequently felt inclined to punish the owner of a cow that I have seen in the situation that I describe; I believe that under Mr. Martin's act I should succeed, while, I am sure, the ruffian would deserve the punishment.

If the farmer is wise, he will prefer a three year old heifer springing, that is, about to calve, to any other, and for this reason, because she could not have been previously injured or sold for any fault, and in 999 instances in every 1,000, a cow, if properly treated from the commencement, will turn out well. The same directions that I have laid down for regulating the choice of a cow will also apply to the heifer. If, however, the farmer should prefer a cow that has calved, I would recommend him to observe the following directions. Suppose he fancies a cow, for which he is asked £12, let him then ask what milk

she gives, and if the owner says twelve quarts at a meal with good feed, let the purchaser say, then I'll place the whole amount in the hands of a mutual friend, I'll put the cow on good keep, and you shall name any day within eight as the trial day to come and see her milked, and if she gives the promised quantity you shall have the money. This is what is called "engaging a cow," a practice invariably acted upon by dairymen in Ireland, and found very beneficial. If the seller refuses this offer, let the farmer turn upon his heel and leave him, as the cow is sure to have some defect. So much for the purchase of a dairy cow.

Let us now consider her treatment, which, for the present, I shall confine to her management, as hereafter I shall lay down rules for feeding her, supposing merely for the present that she is to be as well fed as she possibly can be; in such case, then, a very middling cow, if well chosen, will give twenty-four quarts of milk a-day. Care should be taken not to allow her to calve much before the beginning of May, in order that she may be brought to a full flow of milk by an abundance of food given immediately after calving. She should be turned into an open place when about to calve. As soon as she drops the calf, the calf should be sprinkled over with about two table spoonsful of common salt, which will induce the cow to lick it over more greedily, and will have the effect of making her "clean" more speedily. As soon as she "cleans," that is, as soon as she throws off the calf bag, it should be instantly taken from her, and buried, as otherwise she will be sure to eat it, and probably suffer great injury. I am aware that a difference of opinion exists upon this point, many believing that the "cleansing", if eaten by the cow, operates as a medicine. It is so asserted in the second volume of an admirable work entitled "British Husbandry," published under the superintendence of the Society for the Diffusion of Useful Knowledge, a book unequalled, in my humble opinion, by any other that has ever been written upon the subject of Agriculture, one indeed which should constitute an indispensable portion of the property of every man possessed of any quantity of ground from a rood to any amount, and to its extensive circulation I attach the greatest importance. I should feel extreme delicacy in expressing any difference of opinion with the writer of this work; but as, upon the point in question, there is a variance between the text and a note upon the same subject, I incline to that of the note. In the text it is recommended to allow the cleansing to remain with the cow, as the eating of it will "amuse" her; but in the note the writer gives directions as to the proper medicine to be administered in the event of this amusement



making the cow sick. It is, therefore, because I consider prevention better than cure, and because the amusement may be purchased at the expense of the cow's life, that I recommend the cleansing to be taken away as soon as she relieves herself of it. The calf should then be taken from her, and never, under any circumstances, should it be allowed to suck her, as, in such case, she will frequently refuse to give her milk to the hand, while there would always be much trouble in inducing her in the outset after the calf has been let to her. The cow should get warm drinks, bran and water, or meal and water, with the cold just taken off and a little salt mixed in it, for three or four days after calving, and if the calf is to be reared or vealed, it should be kept out of hearing. In about nine days the cow will come to her full milk. And now I will lay down rules for milking which never should be departed from.

The usual practice is to milk cows twice a-day, whereas I would strongly recommend the plan of milking three times a-day, at five in the morning, one at noon, and nine in the evening; thus leaving eight hours between each meal. By following this plan, I will venture to say that a cow will give one-fourth more milk than if only milked twice a-day. If a good cow is well fed, she will begin to drop her milk at least two hours before the time when she is usually milked. If the milk is taken from her by the calf, he will keep tugging at her nine or ten times a-day, and, therefore, it appears contrary to the rules of nature that she should be allowed to go twelve hours without milking. I assign a lapse of eight hours between each milking because I feel convinced that in that period she would gather a full meal of milk. It is of all things necessary that a cow should be treated with the greatest gentleness, as much depends upon temper, and which can be made for the animal by those entrusted with her management. Speak kindly to a cow, pat her, and scratch her, before you sit under her, and she will give every drop of her milk freely: on the other hand, scold her, and kick her about the hind legs—a very usual practice of milkmen to bring other men's cows into a convenient position—and the odds are, either that she upsets the milk, or refuses to give it all. For these reasons I would recommend the small farmer always to allow his wife or daughter to perform the operation of milking. Cows, when properly treated, are very gentle animals, and always prefer being milked by those to whom they are accustomed. Before the woman begins to milk, she should wash the whole udder and teats well over with cold spring water, and then dry it. From constant habit she will soon learn how much milk the



cow gives, and when she has taken within a pint of the whole, she should milk that last pint into a separate vessel; it is called the strippings, and is twice as rich as any other portion of the milk, and perhaps three times as rich as the first pint drawn from the cow: that is, the pint of strippings will yield more cream or butter than the three pints first drawn from the cow. Great care should be taken to milk the cow as clean as possible, in fact not leaving a drop with her, and immediately after she is milked she should be fed.

If the milk is to be used for making butter, the greatest attention must be paid to the cleanliness of the vessels in the first instance, and to the mode of keeping the cream and making the butter. The vessels should be all of wood, and well scoured with hay and fine sand, or gravel and hot water, and afterwards well rinsed out with cold water, and placed in the air to dry, before the milk is strained into them. The milk may be set in summer for twenty-four hours, and then skimmed, and the cream thrown into a clean crock, which is preferable to wood for keeping cream; while wood is preferable to earthenware for making the milk yield its cream. The strippings taken from the cows may be thrown at once into the cream-crock, and great care should be taken to stir the cream upon each addition made to it; a peeled willow-stick being preferred by old hands for this purpose, while I would much prefer the clean hand and arm of a dairymaid, which can sweep round the edges better than any stick. In winter the cream may stand for forty-eight hours, all the same rules being observed that I have laid down for summer treatment. In summer the cream should be churned twice a-week; in winter once a-week. And, now, in order that all the trouble should not go for nothing, I will lay down rules for making butter.

As soon as your butter is thoroughly churned, all the butter-milk must be let off; after which the barrel-churn should be whisked round rapidly, a little cold water having been poured in; this will purge the butter of a great portion of the butter-milk. The butter should then be taken out of the churn, and taken up in large lumps, and well clapped against the bottom of a large wooden keeler, placed in a sloping position. As soon as that process has been performed, it should then be placed in the keeler, and, being well opened with the fingers, the keeler should be filled with spring water, and the dairymaid should knead the butter just as a baker kneads his dough, changing the water as long as it has any tinge of milk, and when the water comes off clean, then the butter, when thoroughly discharged of the water by another good clapping, is ready for the salt, which may be added in the proportion of

about an ounce and-a-half to the pound of butter. The salt should be common marine salt, and, should be well pounded, and made as fine as possible, and, when thoroughly worked, the butter may be placed in the firkin, packing it as firmly as possible, care being taken to select your vessel, if for the wholesale market, of the size most suitable to the means of filling it as speedily as possible; that is, the man who has four cows should prefer the keg which will hold 30lbs. to the firkin that contains 60lbs. A good cow, such as I have described, well fed and properly managed, will yield 2 cwt. of butter in the season, which may be said to last from May to December, both inclusive; of course she will begin to fall off after she has been served in August, but I will take that time as an average. Four cows, then, will make 8 cwt. of butter in the season, or 1 cwt. in each month; a firkin, or half a cwt. in each fortnight; or a keg, or quarter of a cwt. in each week. If the farmer, having four cows, churns twice a-week, then he will fill a keg at two churnings, and will always be sure of first-quality price for his butter. As butter, however, is a very ticklish thing, the butter-taster and the butter-smeller discovering the slightest imperfection, great care must be taken in preparing it for his inspection. I will suppose a woman to have churned fifteen pounds weight of butter, or half a keg, on Wednesday, and the butter to have been packed in the bottom of the keg as before recommended. When she churns again on Saturday, and after that day's produce has been salted, I would recommend her to take the fifteen pounds made on the Wednesday, and mix the produce of both churnings right well up together, and then pack all up in a clean keg, when it will be just as good, and of equal quality, as if made at one churning. The butter should be then kept in a cool place, a little fine salt being shaken over the top, and, if the weather is very hot, the keg may be placed standing in a keeler of water. I have thought it necessary to be very explicit under this head for the reasons that I stated in the outset, namely, that I propose making the small farmer's dairy of four cows the staple of his establishment, and his greatest source of emolument, and, therefore, the want of knowledge, or the want of management, would considerably injure him in this most vital point; while the acquirement of the one, and the observance of the other, would constitute his greatest pleasure, and greatest profit. I must make one observation in concluding under this head, it is this, that the cow is to be fed in the house throughout every day in the year, and never to be pastured on the field, while I must also observe that she should be driven morning and evening each day into a yard or en-



closed place where she could stretch her legs, and receive some fresh air. The house should be well ventilated, and she should never be tied by the head, or otherwise restrained, for good and sufficient reasons which I shall state hereafter. In winter a cow likes warmth, and can have it better in the house than under a hedge. In summer she dislikes the sun and the gadfly, and can be defended against both better in the house than in the field. I dare say there are few who have not seen a set of heavy milch cows with ten hours' stock of milk in their udders, galloping with cocked tails over the country, to the great injury of the animal itself, and to the still greater injury of her milk. A cow should, in all cases, be kept as cool and free from excitement as possible, and her milk will always be in the best possible state. Moreover, when a cow is housed, you have the advantage of all the manure that she makes, and which can be more profitably disposed of at the discretion of the farmer than, by the encampment and folding system, it can be applied by the animal itself. All the rules that I have laid down under this head equally apply to the management of large as to that of small dairies.

#### WHEAT.

If I was bound to classify the produce of the land according to the relative value of the several crops, I certainly should not have given the preference to wheat, inasmuch as, in my opinion, it is less profitable than many other crops. However, the notoriety that it has obtained as an article of importance in the money-market in consequence of our artificial mode of life, as well as the necessity for its general use as an article of food, and which latter necessity arises merely from the fact that wheat can be preserved for many years, while the working classes generally would not be so dependent upon it for support if they had a sufficiency of land whereby their food might be diversified, and good substitutes found in many, very many things, which, however, being for the most part perishable, cannot be brought into the wholesale market as competitors against wheat, which will keep for many years in stack if well made and well thatched, and for many more if kiln-dried and well managed in the warehouse. For these reasons then I place it at the head of the list of produce, and shall treat of the mode of producing it.

The old system which generally prevailed was that of fallowing for wheat, the process of which was as follows:—A piece of ground, generally a stubble or some exhausted field, was



broken up with a plough in the months of October or November, and allowed to remain in that state until spring, when it was back-ploughed, that is, the position of the sods was reversed. In about six weeks after it had remained in that condition, it was cross-ploughed across the sods. When the weeds began to grow it was then drag-harrowed, a very heavy process performed by a large double harrow with long teeth, drawn by five, six, or seven horses. It then went through the process of ploughing and harrowing as often as the weeds made their appearance. In June the surface was rendered very fine, and all the couch-grass gathered in rows with pitchforks, made heaps of, and burned on the spot. When the ashes were spread the field underwent the last process, which is called gorrying. This consisted of a very deep ploughing, by which somewhat about two inches of wild earth was thrown up to the surface as a means of adding strength to it after it had received the atmospheric influence. So it remained until about the end of August, when it received a fine harrowing, and was then ready about the latter end of September for the seed, which was sown in narrow ridges about four feet wide, under the plough, and allowed to remain in that rough state until the first dry weather in spring, when sheep and lambs were turned in to eat it down, and, by trampling it, to make it plant, or throw out more shoots. It was then bush-harrowed and rolled, but not made very fine, as the farmers are very deeply impressed with the value of a fools adage, held in high respect by their order, "sow wheat with a clod;" which, however, means no more than that stiff clay-land is better suited for wheat than for any other grain. Thus it will be seen that the land was two years producing one crop, simply because the plough was substituted for the spade; whereas, under a good system of spade-husbandry, the same land would have produced four or five crops within the same period.

As I shall assign to this crop its proper place when I come to lay down rules for the management of small farms, I shall here merely describe the system which has now been substituted for that of fallowing, which latter is almost exploded. Wheat is now sown either upon a clover-ley which has been fed by sheep, or after a crop of white turnips, fed off late in autumn, or early in winter, or in spring after a crop of Swedish turnips, or after a crop of potatoes, dug out in October. There are various descriptions of seed, which the farmer must be guided in the use of, according to the description of his land, according to the season at which he sows, whether spring or winter, and of which I shall treat hereafter. I very much prefer a crop of spring to winter wheat. The amount of seed required is about

ten stone to the acre; but I think that the man who sows his wheat under the shovel, as I shall describe, instead of under the plough, will find eight stone, of good seed, ample for an acre. The time that I shall recommend for sowing this crop will be, from the last week in March to the second week in April. The following is the way to sow wheat, and to prepare the seed. However clean the wheat may appear to be, the farmer should pick the weeds out of the sheaf before they are threshed. A child will pick five hundred sheaves in the day, and five hundred sheaves will produce somewhat more, if of ordinary size and quality, than 100 stone of wheat; therefore, one child would pick in one day a sufficiency to sow more than twelve acres of wheat: whereas, if the weeds are thrashed and sown with the corn, it may take the same child six days to weed an acre. I am not supposing that there are to be any weeds, for the farmer who had half-a-dozen weeds upon his four acres would be a very dirty fellow. But, as I am laying down rules for the dirty large farmer, as well as for the clean small farmer, I think it necessary to suppose the existence of weeds. Not only the weeds, but the small dead and unripe ears, should also be picked out. When this is done, the wheat intended for seed should be threshed as nearly as possible to the time when it is required for use, and upon a very clean floor; the farmer always taking care to renew his seed constantly; preferring that grown on light soils, if his is of a clayey nature, and *vice versa*. When the seed is threshed, it should be laid upon a flag-floor and well "clogged," that is, dashed over with a strong limewash with a brush. When the lime is thoroughly dried upon it, it should then be sown with an even and careful hand; and its white colour, contrasted with the dark colour of the ground, will be a very good guide for the seedsman. When the seed is sown, it should be instantly covered up with a shovel, giving all about two inches and a half of earth, making the beds eight feet wide, and the furrows, from whence the earth to cover them is taken, about fifteen inches wide. If weeds should grow up, the bed can be weeded from the furrow, without trampling the wheat. As good depth of soil is matter of primary importance to the farmer; I recommend the following process to be performed after the wheat has been sown. It is this:—The furrows should be dug to the depth of at least one foot, and the earth should be dug and re-dug at every spare hour that is available throughout the summer. By this means the farmer will have made a foot deep of manure in nearly one-sixth of his whole field, and by observing the same rule with regard to the furrows when his potatoes are planted, the whole field will have acquired an



additional surface in the course of three years; or rather the same land will have received this addition after a succession of three potato-crops and three wheat-crops. When once dug and broken, one man will re-dig the furrows of an acre in two days with great ease. And if the process is repeated six times, from seed-time to harvest, he will have expended about fourteen days' labour, being four days for the first digging, and two for every subsequent one, and for which he will have acquired good remuneration, in a large supply of the best manure made upon the spot.

Wheat, although a very hardy plant, is liable to many diseases, such as smut, which means the ear, just as the grains are formed, turning into a kind of sooty substance. The red-gum, which is like a smut, but of a red colour. Blight, blast, and mildew are also diseases to which wheat is subject, and now I will explain the most probable cause of these many diseases. In the beginning of summer the wheat begins to flower, and while in that state the head or flowering part is lapped over with the leaf of the straw. As soon as the ear shoots from the boot, as it is called, it requires dry weather to allow the grains to form, and to come to maturity. If, however, the weather is wet, or even damp, and calm or foggy at the period when the ear is being formed in the boot, there is a strong probability that the crop will be damaged; and for this reason the boot is like a cup, or, to describe it more perfectly, it resembles a pistol, and the ear the ramrod. If the pistol is filled full of water, the ramrod will be sure to be wet; so, if the boot is filled full of water, the ear, before it has shot from it, will be wet; and if the weather is so calm that the water must remain in the boot, the flower is perished, and, instead of grains of wheat, you have the substances that I have before described. There is only one way of meeting this calamity, which is this, whenever the weather is wet, or muggy, and no breeze to shake the water out of the boot, the small farmer and his wife should take a line, about the substance of a common Jack-line, nine or ten feet long, and walking at a brisk pace in the furrows, should draw the line right along the wheat, shaking it well night and morning, or after rain or fog. I will undertake to say that in few instances will a crop of wheat fail if this practice is observed, while the process of shaking an acre would not take more than ten minutes. I am aware that the several diseases to which wheat is liable, are attributed by the ablest writers to various other causes than those to which I have ascribed them. One of the most generally received notions as to the cause of several of those diseases is, that at particular seasons the wheat, as well as the turnip-crop, is liable to the visitation of swarms



of flies of one description or another, who deposit their eggs in the boot, and thus cause the ruin of the crop. Another cause that has been assigned is, from infection communicated to the seed by its being threshed on a floor where damaged wheat has been threshed, or by being put into sacks in which damaged wheat has been before. Others ascribe them to a want of proper management in preparing the seed; some recommending the use of one description of pickle, and others recommending the use of other descriptions; while all appear to agree as to the necessity for the use of lime, and which, in my opinion, is a good substitute for all others, if the practice of shaking the growing crop, as I have described, is observed. I cannot possibly understand how any imperfection in the seed can be assigned as the cause of disease after the straw shall have shot to that height when shooting from the boot may be expected to commence. The two great points to be observed then, after a proper selection of seed, is, the preservation of the grain from insects, and the preservation of the crop from those subsequent calamities to which it is liable through the various stages of its growth. The use of lime will, in my opinion, best effect the first object, while, admitting the fly to be the cause of any of those diseases which I attribute to the weather and bad sowing, I think that the eggs deposited in the boot may be effectually got rid of by the shaking system. The process of "steeping" is relied upon rather as a means of discovering and getting rid of the light grains that float to the surface, than for any other purpose, and this, in my opinion, can be as well accomplished by a cautious picking of the shrivelled and damaged ears while the wheat is in the sheaf. Another general cause to which I would attribute many diseases to which wheat is liable is, that of uneven sowing, and too deep sowing. I can very well understand how it is that a grain of wheat, having made its way through seven or eight inches of various descriptions of soil, may grow to a certain point, and then fail. For instance, it will go through the several stages of vegetation, tillering, and flowering, while it may lack the strength to bring the ear to perfection. I can also very well understand why it is that one portion of a field, all sown perhaps upon the same day, and with seed taken from the same heap, may be diseased, while other portions have wholly escaped all calamities. I would ascribe this apparent anomaly to the following causes:—When you sow wheat with a very unequal covering, those grains which have a sufficiency over them, and a good bed under them, will come to perfection; while those that have to struggle through too deep a covering, with a hard glazed and wild bed under them, will be sure to

suffer. As regards diseases, then, and the several precautions against them, I would recommend good seed, the use of lime, equal covering, and never too deep, and shaking the crop, as I have described, in suspicious seasons.

A great fault with farmers is, allowing their wheat to get too ripe, waiting till the neck turns, and the ear drops before they reap it; whereas they should judge by the knee or knot which separates the head from the straw, instead of by the ear. When that knot becomes black, all communication between the earth and the ear then ceases, and all that can be done by allowing it to stand after that time can be as well accomplished, and indeed better, after than before reaping. In speaking of this knot, I should observe, that one of the greatest calamities to which the wheat-crop is liable, is the premature closing the communication between the earth and the ear, and which may be always observed from the appearance of the knot, which, upon its first formation, assumes a pale green, then a darker green, then a transparent yellow, then a harder appearance and a darker yellow, and so on, becoming darker and darker until at length it becomes black, hard, and impenetrable, stopping the communication altogether. This disease is most likely to occur when the seed is sown too deep, or too near the wild earth, or in bad soils; as in such cases the earth will yield a sufficient amount of nutriment to ripen the straw, but not to ripen the ear. But I will venture to assert that such a calamity will not occur once in forty years when the wheat is sown upon the surface with a good bed under it, and from two to three inches of good mould over it, which daily becomes richer from its exposure to the atmosphere. Let the farmer beware then of giving his seed too much covering, and of sowing it in ground incapable of nursing it, supporting it, and maturing it, with the chances of the required nutriment being prematurely withdrawn, or altogether wanting.

By observing these rules the grain will be brighter and plumper, while, by giving the seed an equal covering with the shovel, instead of an uneven one with the plough, the whole crop will ripen together, and the unripe or growing portion will not have to be sacrificed to the riper portion, nor will the process of saving be as tedious or expensive. If the crop is properly managed, six quarters an acre would be by no means a large produce, while I would consider the man unfortunate who had no more than four, and which, according to the present system, is very much beyond an average crop. The straw of wheat is better bedding for cattle than any other description of straw, while, in my opinion, if used fresh and chopped, it makes better fodder and certainly much better manure, while



it is not so tender or so hard to be saved in bad weather as either oats or barley. And, in conclusion, wheat may be made much more beneficial to the working classes if it ceased to be an article of such extensive traffic in the hands of speculators, and which never can be accomplished until either every man becomes a grower of as much as he will require himself, or until there are so many growers, that the monopoly of a corporation of speculators in human misery shall be broken down.

#### POTATOES.

The misery which the exclusive use of the potatoe as an article of food has brought upon my own country, would rather lead me to discourage, than to recommend, its propagation. As it arises, however, more from necessity than choice, I will not allow such a consideration to weigh with me, neither shall I be led to under-value its uses in consequence of its abuses. Scores of volumes have been written upon the subject of Agriculture, and in not one of which has the potatoe had its proper value assigned to it, whereas I think, without overstraining or exaggerating its merits, I shall be enabled to show, that the potatoe is, for every reason, the most profitable crop that the land can be brought to produce as an article of general use.

The turnip being for the most part the farmer's grand crop, and potatoes being the best substitute for turnips, it has been the practice of writers to contrast the relative value and merits of the two crops. One great preference that all agree upon giving to the turnip crop is, that turnip ground must be kept clear and free from weeds, while the necessary mode of cultivation is the best preparation for a wheat crop. To the first proposition, I reply, that if the turnip ground "must" be kept clear, the potatoe ground *ought* to be kept clear, and *might* be kept clear at as little expense as the turnip ground. To the second, I reply, that those writers have given the preference to cultivation for turnips of the most approved description, while in general they contrast it with the rudest mode of cultivating the potatoe, while I further contend, that the land, if properly cultivated for potatoes, both from its preparatory and subsequent treatment, that is, before they are planted, and when they are dug, is in a better state for a wheat crop than it is after the most approved method of cultivating it for turnips. Here, again, we find the evils of the large farm system brought in aid of the cultivation of turnips, in consequence of the facilities afforded for consuming the crop upon the ground, whereas, as I have



before explained under the head "large farms," much of the crop is lost by this slovenly practice. The advantages, then, that the potatoe has over the turnip are these :—

Firstly.—The potatoe has the double advantage of being good food for all sorts of animals, while it is also a favourite root for man's use.

Secondly.—The chances of success in favour of the potatoe against the turnip in all seasons are as twenty to one.

Thirdly.—The potatoe can be planted at seasons when the turnip cannot be sown.

Fourthly.—The potatoe crop can be taken off in time for a crop of winter wheat, and the produce can be safely stored.

Fifthly.—A crop of the best potatoes will fat nearly double the quantity of cattle that the best acre of turnips would fat.

Sixthly.—The farmer can bring his beast to market in little more than one-half the time upon potatoes than he can upon turnips, thus giving him the advantage, and a great one it is, of feeding off a double stock in the one winter season, and of disposing of a cow in the most profitable condition if she shall fall off in her milk unexpectedly in winter or even in spring.

Seventhly.—The manure made by cattle fed on potatoes is far superior to the manure of cattle fed upon turnips.

Eighthly.—Potatoes are good food for horses, cows, sheep, oxen, pigs, poultry, dogs, and man, while turnips are only fit for black cattle and sheep, or windy stuffing for horses and pigs, and a very indigestible vegetable for man.

I shall now state the mode of cultivating the potatoe, and the reasons why the crop sometimes fails. The best season for planting potatoes for a general crop is in the first fine weather in March, and the reasons why it has been deferred of late years till late in April, May, and in some instances June, are in consequence of numberless failures which have taken place arising out of the unseasonable weather we have had at the earlier period of the year for the last few seasons. I am perfectly aware that March is six weeks earlier than can safely be relied upon according to the usual method of cultivation. But I will state what this arises from, and how it may be counteracted. Potatoes are thus prepared for planting. The middling size are selected for seed and are cut into settings, leaving one or two eyes in each cut. The farmer, apprehensive of losing his seed by being too long cut before the season will admit of using them, is disinclined to commence that operation until the very season arrives for planting. This apprehension, in the first place, prevents him from cutting them in March, while the immediate use which he is compelled to make of the seed before the wound is healed, frequently leads to a failure of the whole

crop. If settings are to be used, they should be kept until they just begin to sprout and should be then planted, but if they are used fresh from the knife, and if the weather comes wet before they have shot out, the seed rots and the whole crop is consequently lost. I have seen scores upon scores of acres of potatoes lost from this practice.

Perhaps the advocate for turnips may ask me how I would obviate this danger, and say, that the loss from the failure of an acre of potatoes is very much greater than the loss occasioned by the failure of an acre of turnips. I admit this at once, but, upon the other hand, I contend, that there is no necessity for running the most remote chance of failure upon the score of seed, while he cannot defend himself from the fly, the worm, bad seed, bad season, "fingers and toes," and the thousand and one chances of failure to which the turnip is liable. I once lost a very fine field of eight acres by a failure of the seed, which was cut as I have described, and I learned my practical experience from one small corner of that field, for which I had not a sufficiency of seed. I was short for the seed of about six perches, and I told my steward to go into one of the potatoe houses, and to sweep it up and bring out the produce, he brought out a hamper of stalks, earth, and some small potatoes, varying from the size of a small marble to that of a large gooseberry. We made holes and dropped two of those small potatoes into each. The season turned out very wet, there was a general failure, most fields had to be renewed, while not one single one of the small potatoes planted whole failed, and from that day to the present I have never planted any other seed than the largest whole potatoes I could procure, and plant them where I would, wet or dry, cold or warm, I have never had the failure of a single stalk. I was determined that all the farmers in my neighbourhood should have the benefit of the knowledge that I had acquired, and as an Irish farmer will require any thing new that he hears to "have a face upon it," as he terms it, I hit upon the happy expedient of illustrating my assertion in favour of the whole potatoe, by referring them to the potatoes growing amongst their wheat, and the seed of which had remained whole in the ground from the time when the potatoe crop was dug in the previous November, and which must consequently have remained out during the whole winter. This is what I mean:—When a farmer digs his potatoes he will not be able to find all. Those that remain in the ground grow up amongst the wheat, and, upon examining their wheat fields, they discovered throughout the whole neighbourhood, that there was rather more than an average crop from the whole potatoes that had remained from the previous year, while the crop generally



had failed from the cut seed having rotted. As, however, they consider it a great waste of ground to plant whole potatoes at the required distance asunder, and as planting whole ones as thick as they are accustomed to plant the seed (four perhaps cut from each potatoe), they imagine that they should use four times as much seed, which is expensive, (the seed of an acre in ordinary times costing a pound, besides 2s. 8d. for cutting it) if they substituted the whole potatoe for cuttings.

Before I lay down general rules for the cultivation of the potatoe, the uses to be made of it, and the manner in which the crop is to be saved, I shall make a few general observations to guide the small farmer in his choice of seed, as well as to direct him in the mode of procuring it. There is an immense variety of the potatoe, and to enumerate each according either to its local or general name, would be impossible; the same potatoe being known in different localities by different names. As I am very anxious that those who produce luxuries should be partakers of them, and as I am most desirous to inculcate a spirit of rivalry amongst the peasantry of this country, I shall treat the potatoe as an article of luxury, as well as being an indispensable ingredient for the general uses of both large and small farmers.

Passing over, then, the enumeration of the several sorts of potatoes, I shall content myself with merely recommending those of different kinds which should constitute the farmer's stock. These may be classed under three heads;—the early potatoe, the harvest potatoe, and the late potatoe. The different sorts which, in my opinion, the farmer will do well to confine himself to, are, the ash-leaved kidney, the copper kidney, or the red-nosed kidney in his garden for an early dish; the pink eye, the white eye, or the white American, or quarry potatoe, for his harvest crop; and the black or red apple, the cup or minion, and champion, for a late crop. In all cases, but more especially as regards the early potatoe, which must be planted in unsettled weather, the seed should be planted whole, and although it is difficult to drive an old system out of the heads of those who have been trained up in it, yet I incline to think that the practice of substituting the whole potatoe for cuttings will, upon the whole, be found rather a saving, than a useless expenditure, even of the seed. But of this hereafter.

Whatever sort of potatoe is selected as an early crop, should be planted as soon as the weather breaks after Christmas, and in the following manner:—The ground, being level, should be laid out in beds of about three feet wide; the potatoe should be then dibbled in whole, and not too deep, say two inches at the most; three rows will be ample, one row in the centre, and



another within a foot of each side of it, thus leaving a foot between each row, and six inches between the two outside rows and the breast of the bed. As soon as the potatoes are planted, and without stopping the holes, a sufficient quantity of manure should be laid over the whole surface of the bed, and about two inches of earth should then be cast over the manure, from furrows of a foot wide. Though I am by no means friendly to the frequent use of stable dung, and especially in an unfermented state, yet I am of opinion that half-made stable dung, or that made by cattle fed in the houses, would be best suited for the early potatoe, for the two following reasons:—firstly, because it furnishes an excellent barrier between the two earths against frost; and, secondly, because it possesses the property of communicating nutriment more speedily, and at seasons when colder kinds cannot be got to act. I have seen most excellent crops of early potatoes produced by substituting a good covering of hay, taken from under the mangers, for manure.

The harvest crop may be planted as early as possible in March; the mode not varying from that which I have recommended for the cultivation of the earlier kind, with the single exception that, in the latter case, the beds may be four feet wide, and have four rows of seed; and, perhaps, as it requires a shorter time for arriving at maturity than the later sort, and consequently taking more out of the ground, it may require somewhat less manure than the early sort, and somewhat more than the later. The late, or general crop, may be planted precisely at the same time and in the same manner as the second, or the harvest crop.

The kind selected for early use should be covered with ferns or dry straw at night, until it has passed over all danger from frost. This process will require but a few minutes night and morning, and must not be neglected. If care be taken of the crop, the farmer may calculate, in the southern districts, upon having a good dish of well-grown early potatoes on, or a little before, the first of June, and, in a northern district, from the 10th to the 15th of the same month. I have set thirty men into a ten-acre field of white Americans, to supply four neighbouring markets with full-grown, dry, and well-flavoured potatoes on the 24th of June, and have not stopped until the field was dug out.

The harvest potatoe will be fit for use about the first week in August, and may be dug as required until the second week in October, when the late crop will be ready for general use, and may be dug. In passing, I may here make one general observation which I find has escaped the notice of other writers; it

is this:—the early potatoe and the harvest potatoe may be considered in a more perfect state for use before they have arrived at maturity than the late crop will be during its similar stage; that is, supposing the harvest crop to be perfectly ripe on the first of September, it will be more fit for use on the first of August than the late crop which may be ripe on the tenth of October will be on the tenth of September, and for this reason, if for no other, should the farmer be careful in having a succession of crops, and never allow a spade to go into his late crop until it is ready for storing. I have no hesitation in saying that fully one-third of the late crop of potatoes is annually lost in Ireland from this system of "rooting" at it before the potatoes are ripe.

I shall now proceed to give directions to the old system-men, who will continue to use cut seed in order to render the error as harmless as possible. Firstly, then,—in all cases a good sized potatoe should be selected, and those that have grown in peat-ground burned, or in moist land, should be preferred for upland and dry soils. A good judge will at once discern any bastard or spurious kinds, and should never cut them. The eye, nearest the top, where in most kinds there are a cluster of four or five, is the prime cut of the potatoe, and the dint, or large dimple at the bottom, from which the stalk has shot, should be invariably rejected, as in fact it has no power of growing at all, though it is often mistaken for an eye. Those eyes nearest the heel of the potatoe, as I will call it, are not so good, or as much to be relied upon, as those near the nose. The mode that I recommend then, in cases where moderate sized seed, say somewhat larger than an egg, has been selected, is this;—the heel or bottom part should be sliced off, and thrown on one side for pigs or cattle;—the top or nose should then be cut off, leaving a sufficient amount of pulp, and the remainder of the potatoe may then be cut in two. When the seed is cut, it should be laid upon a dry earthen floor, say three cuts thick, and at night may be covered over with straw as a protection against frost. When the wounds have healed, and the eyes have begun to shoot, the seed will then be ready for use; the farmer taking care not to plant any that have not shown symptoms of budding.

If the season between cutting and planting should prove unpropitious, the cuts, by admitting a proper current of air over them, and keeping them stirred, and not allowing them to heat, may be preserved for five or six weeks, and by proper treatment, will be in as good a condition as if they had been used when originally intended. When the farmer bears the fact in mind, that his very existence depends upon the seed in



all cases, it is astonishing that more pains have not been devoted to its selection, treatment, and use.

I shall suppose a late crop of potatoes to be planted in drills, at a distance of three feet from centre to centre, and the farmer to use whole potatoes that, if cut, would give four sets each. If he plants whole potatoes, he may safely trust to a yard apart in the drills for a full crop, whereas if he plants cuts he will use the four in that space, planting them usually about nine inches asunder. He saves then all the expense of cutting, all the chances of blind eyes or bad seed, while he provides against general failure from bad weather, or a hasty use of cut seed; and, above all, he guards himself against that most fatal of all errors, namely, that of thinking that he may cut his seed upon the head-land, while the plough is opening the drill. As soon as the early potatoe peeps above the ground it should be earthed over, or what is called second earthed, by casting about two inches more of the earth from the furrow over the ridge. The crop should then be kept free from a single weed. Harvest potatoes may be allowed to spread their first leaves over the ground before they are second earthed, say when they have grown to three inches high, they should then be second earthed, leaving the leader, or top of the stalk, just above ground. The late crop may be allowed to attain a still greater height before it is second earthed, because at that late season there is not so much danger to be apprehended from frost, and as the later kinds, for the most part, rise to the surface, this crop may get a heavier covering than either the early or the harvest potatoe, say three inches, making in the whole about seven inches of covering besides the manure; dibbled in two inches, first earthing two inches, and second earthing three inches.

I shall now explain several causes from which failure in the potatoe crop arise. The first is, as I have already stated, from the rotting of the seed; the second arises from the error of treating all sorts similarly, giving an equal amount of covering to those sorts that grow down even below the root and the seed, and to those that shoot up and grow out laterally from side sprouts. There are a great variety of potatoes, and especially those in most general use for cattle, which grow down, and which, being planted upon a glazed hard substance, get flat, dinged, and stunted at a very early period, while the seed itself not unfrequently decays before it has communicated full vigour to the plant. To provide against this calamity I have recommended that the potatoe should in all cases be planted within two inches of the surface, with the manure placed over it, which gives to the down-growing potatoe a substratum of ten inches of good soil to grow in, while it affords seven inches,



besides the manure, of covering for those sorts that shoot upwards.

Farmers, then, who will continue to grow "horse-potatoes," "beldrums," "lumpers," and "cluster-potatoes," and various other sorts which present fascination from the quantity that may be produced, will do well to observe the following rules in the exercise of their folly. They should take care not to put too much covering over those sorts that grow down, and to put plenty of covering over those sorts, which are principally of the later kind, that shoot upwards and grow from the knees of the lateral sprouts. If the sceptic will not be convinced by my reasoning, I would recommend him to get up at four or five o'clock of a harvest morning, and visit his late crop of potatoes, and there he will find that whether in drills or in beds the crows have been up before him, and have laid claim to that portion of the crop that had grown to the surface, and which he justly forfeited by his neglect. The necessity of guarding against this calamity would reconcile me to the drill-system, if it could not be otherwise overcome, but only for the cultivation of late potatoes, as the depth at which drills are opened is injurious to the propagation of the earlier kinds. Much controversy has arisen between writers upon Agriculture as to the proper use and most beneficial disposal of manure in the cultivation of potatoes. I have tried it in all ways, as well under the potatoe as over the potatoe, and, after many experiments, reason and common sense have led me to give the preference to the latter practice, namely, that of placing it over the seed, and at some distance too, for the following reasons. If the cut potatoe is placed in manure in a state of fermentation, it will be very apt to rot: again, as the nutritive property of the manure keeps continually descending, it communicates a strength to the seed below, which it cannot communicate to that above it. Even where potatoes are planted that grow downwards, they derive more benefit from the manure when spread over them, provided they have a sufficiency of subsoil made loose, and prepared as it ought to be.

The usual modes of planting potatoes in those parts of Ireland where the crop is best understood, are as follows:—The manure made, as I have described under the head "Manures," is spread upon the ground in the first fine weather after Christmas, and, when the grass grows well through it, it is then ploughed in six-sod ridges, leaving about eighteen inches of the centre of the ridge uncovered and unploughed—the sod from the furrow being cast half to the ridge on either side. It is then what is called "hacked," with an instrument stronger than, but resembling, a carpenter's adze without the pole. This process

is performed by dragging the inner sods over the unploughed centre, and breaking the whole surface very fine. The seed is then dibbled into about the depth of the sod; the holes are then closed, and the furrows are shovelled over the ridge. Another mode is that of ploughing the field before the manure has been put out, and of spreading it over the earth after the potatoes have been dibbled in, and I have invariably observed that the best crops have been produced by the latter mode, from the fact, I presume, of the manure communicating its strength downwards.

It must be evident, however, that in either case the ground, treated as I have described, is not in a fit state to yield a good crop, because the subsoil is not only not properly prepared, but it is further rendered unfit by the glazed condition in which the sole of the plough leaves it. One great advantage is derived from those modes of planting potatoes, it is this—they allow the farmer to get over his other spring work before he earths his potatoes, for when dibbled in, and the manure is spread over them, they are allowed to remain for some time in that state, the farmer never remembering that his manure is daily losing its strength from exposure. When the latter mode is adopted, then I would recommend him not to put out his manure until he is prepared to cover it immediately after its being spread.

Some altercation has taken place as to whether potatoes should be allowed to remain in the ground until they are quite ripe, or whether they should be dug a little before they are ripe. I was once bitten with this anti-ripe mania myself, and tried it, and the result was that I lost a large quantity of very fine potatoes, which, from fermentation, all rotted, whereas I have never lost one if the crop has been allowed to ripen fully; and, perhaps, it may be laid down as a safe principle, that the potatoe, above any other root, may even be allowed, without the slightest damage, to remain in the ground a considerable time after it is ripe. I do not recommend the practice, however.

I shall now describe the mode of saving the crop. They should be dug with four-pronged forks, the prongs being about three quarters of an inch wide, and blunt at the top, with a space of an inch to an inch and-a-half wide between the prongs. Great care should be taken in placing the fork about midway between the stalks to avoid cutting the potatoes. Women should follow with the basket, picking up all those of a size for keeping, making heaps of the small ones on the ridge, which may be gathered in the evening, and kept together for the immediate use of pigs and poultry. Many a fine crop of potatoes has been lost by mixing all sizes up together; the small po-



tatoes acting as a kind of grouting, filling up the spaces which should be allowed for ventilation. The large potatoes should then be stored in the following manner:—A potatoe-pit of the required dimensions should be dug to a depth not exceeding four or six inches. The space should be then filled with strong dry wheaten straw, and upon that bed the potatoes may be laid to any length, and from three to four feet wide, and to the same height; with a batta from base to top in the form of a wedge. If the weather answers, they may be left in that state for some days, and then covered with a good layer of wheaten straw placed all over them, and covered like a grave, with about six inches of mould well clapped and made glazed with the back of the spade after it is laid on. A drain to the depth of a foot and a half should then be made round the pit, communicating by the fall of ground with some other drain which will carry off the water. Potatoes stored in this way, and dug in proper season, will keep without the slightest damage till the following April. In fact they will keep in this way better than in any other way, while the end of the pit may be opened at any time for the purpose of taking from it a week or a fortnight's supply for immediate use.

I am aware that many recommend the practice of nipping off the blossom from the stalk. I have never tried the plan myself, but I must in fairness say that I think it has a face upon it, and is one, as to the adoption of which every farmer may come to a rational conclusion by trying the experiment upon a small scale. I think that removing the blossom from those kinds which bear apples or potatoe-seed, would be found beneficial, and for this reason, because in case of their removal, all that nutriment necessary for their support would be communicated to the root itself. However, these are all matters upon which very rational conclusions can be arrived at, and therefore I leave the solution of them to those who wish to try the experiment.

The following is the mode of acquiring a variety of new seed. When the apples are ripe, they should be plucked from the stalk and put, in quantities of from four to six pounds, in bags made of strong brown paper, which should be tied up and hung in a dry place. When thoroughly dry they may be crushed open, when the seed will fall out, and it, too, should be put into bags of the same description, but in smaller quantities. The seed so procured may be sown in the first fine weather in spring, as onions are sown, and it may happen that the seed of an apple-potatoe will yield from forty to fifty different varieties of potatoes. The farmer must watch them in their growth, selecting the most healthy, and those which give best promise



for seed for the next year. He should then plant them whole in the spring of the following year, always making the best selections, and at the end of three years he may have made some wonderful discovery.

I have already compared the potatoe with the turnip as a general crop, and I must now state some of those causes which have led to the preference given to the turnip. A potatoe is a potatoe, so is a turnip a turnip; but while there are scores of varieties of the potatoe, all varying in the amount of the solid nutriment they contain, the root has never been cultivated with reference to this essential consideration, the farmer supposing that a stone weight of "lumpers," and a stone weight of "cups," "apples," or "champions," is one and the same thing; while, upon the other hand, although the variety of the turnip kind is comparatively insignificant; yet the relative property of the few varieties has been made matter of important consideration. For instance, I believe that an acre of the best Swedish turnips will turn out more fat, and make greater profit, than an acre of lumpers; while, upon the other hand, I am convinced that the best acre of "cups, apples, or champions," will turn out more fat than two acres of the best Swedes, and as much as any three acres of the best "globe," "stone," or "white Norfolk."

Another fallacy upon which the potatoe has been condemned has arisen from the improper use made of it, many farmers giving it to cattle, pigs, and horses, in a raw state, or unripe, or after the season for giving it with advantage has passed. The potatoe never should be given in a raw state to any animal or any thing, with the exception of a sheep or a goose. A goose will thrive better, and have a better flavour, upon raw potatoes sliced than if fed upon any other food; while the sheep will thrive more rapidly upon it in a raw state than upon any other food. Upon the other hand, raw potatoes, and especially in the commencement, will scour cattle and horses, and not unfrequently cause death; while there is no danger from steamed potatoes to either the one or the other. Pigs will not always eat, and never can be fatted upon, raw potatoes; while boiled potatoes will bring them to the greatest weight that they are capable of acquiring, and to greater perfection than any other food which can be continuously used with safety, admitting always, that from three weeks to a month's feeding upon oats or barley is necessary, if not indeed indispensable, to make the bacon firm and to give it a flavour.

I have already, in the commencement of this chapter, given my reasons so fully for preferring the potatoe to the turnip, and especially for the small farmer, that I shall now close under this

head with one or two general observations, and one or two particular ones which I have made myself. In point of value, then, I contend that the best acre of potatoes is, for any use, worth four times as much as the best acre of turnips, while the manure produced from the former is much preferable to that produced from the latter; and that a careless use is made of the turnip which is not made of the potatoe in consequence of its greater value.

The particular observations that I made respecting the relative value of steamed and raw potatoes are as follows:—I took two thorough-bred colts up from grass in November, both rising four years old. From their then appearance, I had reason to fear that they would not be “weight carriers.” After they had gone through their regular course of physic, I gave them a small feed of boiled potatoes, with bran, night and morning, and a sufficient quantity of hay. As they got used to the food, I increased it to a small bucket for each nearly full, night and morning. In a short time I found that they had altogether rejected the hay, and for the four last months they never tasted any other food than potatoes and bran, nor did they taste water. Their eyes shone like diamonds; their skins were like satin; their growth was so improved that they gave every promise of becoming first-rate hunters, and which they subsequently did. The same year I had about thirty head of cattle fattening upon potatoes. I gave them, in the first instance, raw, and found that all, or nearly all, were seized with violent scouring, while one of the best died. I then changed the food of some to a sufficient quantity of the best hay, and of a few others to boiled potatoes, and the result was such a change in the animals as astonished me and every body else. One most important circumstance in the feeding of all sorts of cattle should not be omitted, and is well worthy the consideration of the farmer; it is this:—At the time that I speak of, I had eleven head of cattle “bailed up” in a cow-house, and all the rest loose, each having a single house to itself. While in the cow-house I frequently witnessed the great difficulty that the animals experienced in lying down and getting up. I also found that those that were loose lay down in an entirely different position. This induced me to change them, and I put six of the most backward and of the worst thriving from the cowhouse into the single houses, and put those that had been in the single houses into their places, and the result was that those in the single houses began to thrive rapidly, while those that had been changed to the bail as rapidly fell off. The reason of this will be at once seen: rest is as necessary for an animal as food itself, and, by observing the natural posture of a



cow while sleeping in the field, it will be seen that she usually lies with her head inclined to the flank across the fore-shoulder, a position which she never can acquire when bailed up or tied by the head amongst other beasts. For these reasons I have not for many years allowed a beast of mine to be tied up, or a collar to be put upon one of my horses.

I have thought it necessary to enter fully upon the relative value of potatoes and turnips, because the preference for the latter has gone far to induce landlords to adopt the large farm system; while the proper cultivation of the latter is indispensable to the complete working of the small farm system, and is peculiarly adapted to spade husbandry.

#### TURNIPS.

If many writers have attributed the poverty of the Irish people to the facility with which they can procure an almost unlimited supply of potatoes, I think I may attribute much of the poverty and degradation of the English working classes, as well as the growing contentions between landlord and tenant, to the extensive propagation of the turnip. I am aware that it will be considered heterodox, to attempt any disparagement of this now favoured and fashionable root. It is, however, to the agricultural labourer what machinery is to the factory operative, and it is, in the hands of the landlord, what the factory itself is in the hands of the cotton lord, each enabling their respective owners to dispense with manual labour to a considerable extent. Was it not for the encouragement of the turnip, it would be impossible for the landlords of this country to have so allotted their estates as to render a supply of any description of food from foreign countries necessary. The rage for turnips is always in proportion to the size of the farm, and may be considered as the very main spring of the large farm system.

Before I proceed to a consideration of the value of this crop, I shall treat of the different descriptions most in use; the soil most genial to its growth; the mode of culture; treatment while growing; diseases to which it is liable; mode of saving the crop; and its application.

The descriptions of turnip most in use for a succession of food are, the globe or white Norfolk, the Aberdeen or red-topped yellow, and the Swedish turnip. There are some others which, however, with the exception of the stone turnip, vary but little from those that I have mentioned.

The soil in which turnips of all descriptions thrive best, is that of a deep, loose, mellow, friable nature; dry and free from



clay. The turnip thrives best in a cool temperate climate, and although it requires a dry bed, it delights in a moist atmosphere. Hence we find the turnip cultivated to much greater perfection in Scotland, and in the northern counties, than in the southern counties of England. I am not quite sure, however, that much of the preference given to those districts does not arise out of the fact, that the land in the southern districts can be turned to better account. However, I am ready to yield the superiority to Scotland and the northern districts.

The usual mode of preparing for a crop of turnips after corn is as follows:—the stubble should be broke up as soon as possible after harvest, and allowed to remain rough in ridgelets till the first dry weather in spring, when it is cross ploughed and well harrowed, and from that time to the time of sowing the crop it should be ploughed and harrowed whenever weeds show themselves. The ground for the turnip should be ploughed deeper than for any other crop with the exception of mangul wurtzel and carrots, all of which grow from a tap root and to a great depth. Before the seed is sown, the usual practice is to make the surface as fine as possible, drills are then opened at rather better than two feet from centre to centre; the manure, which must be of the very best and richest quality, at the rate of full twenty tons an acre, should be then liberally spread in the drill, which is closed up just as if planted with potatoes. The seed is then sown by some one of the various implements now in use for that purpose, and to all of which there is a roller attached, which flattens the top of the drill, leaving it from six to eight inches wide.

Another system in very general use is that of sowing in broad cast, or sowing the whole field in the same manner as clover is sown. If the latter method is adopted the manure should be ploughed in with the second last ploughing, so as to admit of its being thoroughly incorporated with the soil previous to the seed being sown. If lime is used, the too frequent use of which should be discouraged, it should be laid upon the stubble before the field is broke up, as its effect upon the soil is more durable than any other description of manure, while its use immediately before sowing fails of producing that effect which an earlier application would produce. After the lime is laid on, its vigour is increased by every subsequent stirring. If bone dust is used the seed should be sown as speedily as possible after its application. I incline, however, to a union of those two plans.

I approve decidedly of the system of sowing in drills, while I am greatly in favour of an early application of the manure in order that it may be well incorporated with the soil to aid in

the early growth of the plants. I approve of the drill, because by that means the earth can be most profitably arranged, so as to insure that depth of soil which the broad cast will not admit of, whereas the space between turnips sown in broad cast is wholly lost and of no earthly value. The principal objection to the drill system is, that the crop cannot be safely fed off by sheep, as they are very apt to lie down in the furrows, to turn upon the back and die, before they are discovered. One rule as regards turnips must be observed, that is, that the ground must be as fine as it can be possibly made before the seed is sown. If sown in drills, the turnip will generally shoot up in about ten or twelve days and will very shortly throw out what is called the rough leaf, or present a miniature of the plant. At this stage the earth should be taken away from the breast of the drill, as well for the purpose of cutting off the weeds, as of preparing it in the valley for its subsequent application to the crop. Shortly after this process, a pretty fair guess can be made of the prospect, and the farmer may then proceed with the operation of thinning the crop with a hand hoe, leaving the plants ten or eleven inches asunder, and cutting up the weeds. When the plants get a-head after this process, which they will do very speedily, the farmer should again go over the drills, cutting out any fresh plants that have sprouted up and clearing off the weeds.

The principal advantage of the Swedes over other descriptions is, that if unhealthy plants, or plants that have started into head, shall appear, or if any failures should take place, their places may be supplied by transplanting from parts which will admit of being thinned. After this process has been performed, the plants should be carefully earthed by applying the mould in the valleys with a hand hoe. The crop will then speedily cover the ground, which will go far to prevent the growth of weeds; should any appear, however, neither time nor pains should be spared in eradicating them, and should the weather turn out very dry and the ground become hard, the space between the plants may be poked with a sharp crow-bar, which, being prised, will loosen the soil and thus afford fresh nutriment to the plants, while it will be the means of enabling the loosened soil to retain the moisture of the night dews. Great damage frequently occurs to the turnip crop by the ground becoming caked and hard from long drought.

The diseases to which the turnip crop is liable have been before stated, the principal of which are, destruction by the fly, and the fingers and toes. The use of quick lime, sulphur, and other nostrums have been recommended as means of protection against the ravages of the fly, but I have not heard of any



plan which can be relied upon with certainty as a means of prevention. Very wet weather, bad cultivation, poor ground, or insufficiency of manure, may, I think, account for the disease of fingers and toes, while, in my opinion, as many failures take place from negligence in the selection of seed, as from any other cause.

The best season for sowing Swedes may be considered to be from the second week in April to the first week in May; for the Aberdeen from the first week in May to the middle of that month; and for the white globe or Norfolk from the second week in May to the first week in June.

Turnips are either fed off on the ground by sheep; drawn as they are required for the use of store or stall fed cattle; or stored, if the ground is either wet or required for a winter crop. If stored, they are drawn about the latter end of October or the beginning of November; the heads and tails are then chopped off, and they are piled in the same manner and shape in which the potatoes are placed in the pit, and are then well covered with dry ferns or wheaten straw. A deep drain should be dug round the heap, as I have described in treating of the potatoe pit. They may be then taken from the heap as required for use, the globes being first used, the Aberdeens second, and the Swedes kept for spring feeding, as they will last the longest.

There is one curious fact that ought not to be forgotten as regards the relative value of the several descriptions. It is this;—The Swede increases in its nutritive quality in proportion to its size, that is, there will be more nutriment in one Swede of twenty pounds weight, than in two Swedes of ten pounds each, while there will be more nourishment in four white Norfolks of five pounds each, than in one of the same description weighing twenty pounds; and, for this reason, I think more space should be allowed between the Swedes in the drills than to any other description of turnip.

Turnips are given to sheep, store and stall fed cattle; Swedes are very frequently steamed and given to working horses and pigs, but for neither are they sufficient food. I shall now state my general objection to the extensive propagation of the turnip. In the first place, then, they encourage landlords to compel their tenants to keep a large quantity of ground in grass; as the turnip can only be considered as valuable from its capability of keeping up the grass fed cattle in the condition to which the pasture has brought them, so that they may be marketable in all seasons. Thus, a beast weighing eight hundred weight in the month of November, when the grass begins to fall off, can be kept in the same condition throughout the winter by



turnips, and the value, therefore, that can be assigned to the crop, is the difference of price occasioned by the difference of season; for instance, a beast in the same condition will be worth more in March, April, or May, than in September, October, or November.

I believe, however, it will be admitted that turnips do not possess the property of fattening cattle, but merely that of keeping up their condition. This, I admit, is a very great advantage, but by no means equal to that possessed by the potatoe, which is capable of fattening a beast from the very lowest state to the highest perfection to which it can be brought. I have seen many beasts fall off upon turnips, while I have never known potatoes to fail in bringing the very poorest to the highest state of perfection. The reason, then, that I prefer the potatoe to the turnip is, because it affords the means which the turnip lacks of finishing a beast; because the cultivation of potatoes would induce landlords to bring more land under spade cultivation, while [the extensive use of the turnip induces them to keep it either in grass, or if in tillage, to be cultivated by the plough.

Machinery for sowing and cultivating turnips has been brought to great perfection of late years. I am not to be understood as objecting to the use of machinery, even for the purposes of agriculture, on the contrary, I should look to great benefit for the small farmer from the threshing machine, and also, if he chose to cultivate turnips, from those machines which are used for that purpose, and, in the event of the system which I advocate being carried into effect, I will venture to say that every small farmer would derive his full share of benefit from every improvement that was made in machinery, and that each district would be stocked with a sufficiency of the very best description, which might be hired as wanted by those who required it; for instance, in district A, containing a thousand acres of land, and in which somewhere about 1,200 quarters of wheat would be produced annually, it would be very well worth the while of one individual to have a thrashing machine for hire, which would perform the amount of labour required, while it would be a very useless expenditure for a man who had only five quarters of wheat to thrash, to go to the expence of buying a threshing machine. So with the man who had half an acre of turnips, he could hire all the most improved machinery as he required it, while to purchase it would be absolute madness. Perhaps I could not have hit upon a more happy illustration whereby to explain how machinery has become man's curse, and how it could be made man's holiday. I should much rather see the horse hoe, the grubber, the roller, and the drilling

machine, performing the required work, while the man who paid for it was otherwise spending his labour to much greater advantage, than see him expending his strength upon work which might be more profitably performed by machinery.

As it is my intention to enter fully into the questions of the quantity, the different descriptions of food, the time for applying it, the seasons at which it should be grown, and the succession of crops required by the small farmer, when I come to lay down rules for the Management of Small Farms, I have abstained from entering as much into detail under the several heads as I otherwise should have done, and I have confined myself more to general observations than to minute directions.

#### REMARKS.

Having now disposed of what may be considered the three grand crops, I shall only treat, in the present number, of such other crops as I consider necessary for the small farmer, as I am anxious to commence my next number with a clear development of the mode by which I hope to see the small farm system brought into immediate practical operation. My remarks, therefore, will be brief with regard to the remaining produce, giving sufficient information as to the mode of producing them; the purposes to which they may be applied; and their relative value.

If I should hereafter deem it necessary to publish a complete agricultural dictionary, the trouble that such a work will impose upon me shall not deter me from the undertaking, and, in truth, the time is fast approaching when there will be a much greater demand for works upon Agriculture than ever there has been, for good guesses, upon commerce and manufactures. It so happens that almost every work upon farming consists either of a compilation from the writings of the most popular theorists, or of a collection of mere isolated experiments communicated to the author either by the steward of some squire, or the manager of some agricultural society. Upon the other hand, if my little work should bear the appearance of presumption or arrogance from the absence of reference to other writers, my only apology is, that, as I write for those who cannot afford to experimentalize to any great extent, I prefer starting them upon the straight road of simple practice, allowing them to diverge into experiment when they have established their footing; never for a moment denying, or even doubting, that the science of agriculture, in this country, is merely in its infancy,



while I look to its improvement as an easy means of establishing for England a position which may enable her people to bid defiance to the foreign invader, and make them independent of the foreign producer.

#### MANGEL WURTZEL.

There are two descriptions of this root, both as to colour and manner of growing, the one of a flesh colour, the other white. Another difference is supposed to exist between these two species, namely, that while the one strikes its roots deep in the soil, the other grows partly above it. I incline to think, however, that this is an error into which writers have been led by persons who have sown the root in soil not fitted to its growth, and that both species will strike down and grow down, and grow under ground, if the soil is of sufficient depth.

The soil best suited to this valuable root is a deep, heavy, rich loam, and in order to bring the crop to the highest state of perfection, it should be sown in ridgelets, after a liberal quantity of manure has been well worked up with the soil. It being a great object to bring the roots to their full size before the frost sets in, and not to sow the seed so early as to run the risk of damage from frost, every attention should be paid to bring it to maturity within the season which may be relied upon. For this purpose I am friendly to the system of transplanting for two reasons, firstly, because you can take better care of your plants in the seed bed until they are fit for removal, and, secondly, it affords the farmer more time for preparing the ground. Besides these advantages, as the after culture of mangel wurtzel is more tedious and precarious than that required by the turnip, these difficulties will be overcome by transplanting, instead of sowing the seed.

The seed may be sown in a small bed in the garden about the middle of May, and will be fit for removal about the middle of June, when they should be carefully taken up and planted in drills of two and a half feet apart, from centre to centre, and within fifteen inches of each other in the drill. Perhaps it may be as well to mention here, that all those processes which may be said to belong to gardening rather than to farming, should be performed by persons for whom, in each district, there would be sufficient demand to ensure a proper supply. For instance, I should by all means recommend the four acre farmer to have recourse to the practical gardener whenever he required his services, and that not being more than a portion of three or four days in the year, a district of a thousand acres



would furnish ample employment for a number of scientific gardeners. About the latter end of August the under leaves of the mangel wurtzel may be taken off and given to cattle. Milch cows especially like this food, and it increases their milk considerably.

During the first fine weather in October, and before the crop becomes frost-bitten, the root should be drawn, and may be stored in the same manner as turnips, and will furnish a large supply of the most favourite, most wholesome, and nutritive food, while care should be taken to give a portion of some other more binding food with it, chopped straw, hay, or boiled potatoes, for instance. If proper care is bestowed upon mangel wurtzel by selecting the most healthy plants from the seed bed, and preserving a sufficient quantity to replace any failures that may take place in the drills, from fifty to sixty tons weight will be found to be by no means an unusual produce for an acre of good ground. The after culture for mangel wurtzel in no way differs from that of the turnip after the first hand-hoeing.

#### VETCHES.

There are two descriptions of vetch, but I believe that we ourselves have created the distinction, merely by sowing the seed at different seasons of the year. They are now known by the spring and winter vetch.

The winter vetch should be sown about two bushels of seed to the acre, precisely as I have described the method of sowing wheat. The ground should be made very fine, a rather moist soil is that which it thrives best in, but well drained, which the furrow on either side will accomplish. The seed may be sown any time in September, the earlier the better. In a southern climate I have cut vetches two feet high on the 17th of March, but I think about the 20th of April is the earliest period at which a crop may be generally relied upon. Care should be taken to sow either black oats or beans liberally with the vetch crop, as they serve as standards for the vetch and keep the crop from lodging upon the ground.

Spring vetches may be sown in the first fine weather in March, and will be fit for use by the middle of June. They may be sown rather thicker than the winter crop, say two bushels and a half, and the covering may be lighter than that of the winter vetch, say an inch and a half. Vetches are in the best state for milch cows and young cattle and pigs, when the pod has acquired nearly its full size, and care should be taken to give them sparingly in the first instance, although no other

danger is to be apprehended from a liberal use of them than that of creating a temporary weakness, especially in milch cows, as they give an almost incredible quantity of milk when fed upon them.

The vetch does not require a deep soil, and, if cut before ripe, does little or no injury to the land. In fact, it is rather an improving crop, and may be safely taken between a crop of potatoes and barley, cabbages, mangel wurtzel, or white turnips.

#### RAPE.

I am not sure that rape has ever been sufficiently esteemed for general purposes, it being usually confined to the feeding of sheep. I sowed sixteen acres of rape broad cast, after a crop of early potatoes, in the last week in August, and from December till March I fed six score hoggets upon it with the greatest success; the milch cows also devoured it greedily; while I found a great increase both in the richness and quantity of their milk, and the same field gave a luxuriant crop of barley, sown in the second week of April. The stalk of the rape is the richest part, and for that reason great pains should be taken in its management. In broad cast it will grow to leaf; while in drills the stalk will attain an immense thickness. The practice, then, which I recommend for the cultivation of rape, is as follows:—

This crop thrives best in a rich moist soil, and the land does not require so much working as for turnips, mangel-wurtzel, or carrots. The rape seed may be sown like mangel-wurtzel, in a bed in the garden, and may be planted out in drills, twenty inches from centre to centre, and nine inches asunder in the drills. If the plants are taken from a seed-bed, the seed may be sown the latter end of June, and transplanted from the middle to the latter end of August. The crop does not require much after culture, but will be the better for being steadied in the ground during the first dry weather in October, by casting a little earth round each plant with the hand-hoe. Rape seldom or never fails, and is so hardy, that it has been found very difficult to eradicate it from the ground when the crop has been allowed to ripen; indeed there are instances of fields that have been twenty years in grass after rape, throwing up a considerable crop after the first ploughing.

Rape, managed as I have described, would be fit for use in December, and will furnish an abundance of the very best description of food until the ground is required for a succeeding crop; while, like vetches, it has the property of not exhausting the land, if not allowed to run to seed.

## CARROTS.

There is no food to which all kinds of animals are more partial than the carrot, especially horses. I have seen four teams of working-horses, eight carriage-horses, and several saddle-horses, fed from November to March upon carrots, with a small quantity, of about half a peck a-day, of vetches, that had heated in the stack and were unfit for seed, given to each, and I never saw horses in finer condition; while, at the same time, I doubt that they were capable of doing as much work as if they had been fed upon hay and corn. However, they were in top condition, with coats like satin, and very healthy. Milch cows eat carrots greedily; and, while fed upon them, both the quantity and the quality of the milk is considerably improved. The great objection to the carrot as a general crop is, the difficulty of procuring land with a sufficient depth of mould, and which the carrot, above all other roots, requires, not less than two feet at least of loose friable mould being necessary to insure a full crop. I have already given directions as to the mode by which, in about three years, almost any amount of good soil may be insured by digging the furrows, when the earth has been shovelled out of them. I have been led to recommend this practice for the purpose of insuring a sufficient amount of soil for growing mangle wurtzel and carrots, to both of which I attach great value. Supposing then the farmer to have a piece of ground capable of producing carrots, the following is the mode of culture which I recommend.

In November the field should be liberally covered with the compost made under the cattle, as I have described under the head "Manure". It should be then dug in and allowed to remain rough in ridgelets until the first fine weather in spring, when it should receive a thoroughly good digging, care being taken to mix the manure well with the soil; the land may remain so till the middle of April when it should be laid out in beds of four feet wide and furrows a foot wide and eighteen inches deep, this will give an addition of four inches and a half to the depth of the bed, while as carrots require immense attention lest they may be smothered with weeds, the furrow will furnish good standing room, from which each bed to the centre may be weeded without the labourer being compelled to stoop; the ground should be made as fine as possible, not only on the surface, but to the extreme depth to which it can be effected. The seed being of an adhesive, or rather tangling, nature, should be mixed with coarse sand, and sown liberally, say seven pounds to the acre, and covered in with about an inch and a half of the bottom half foot of the furrow. The



plants are very slow in making their appearance, and care should be taken to pull up the weeds with the hand should any appear. The crop will not make its appearance until the beginning of June, when it should be thinned, leaving the plants in the bed fully fifteen inches asunder, and it requires no further care than that of weeding and poking and stirring the earth with a crowbar between the plants should the weather prove dry.

The crop may be drawn about the latter end of October, and the tops may be cut off any time from the middle of September until they begin to decay and given to cattle; a food which they devour greedily. The carrots may then be laid in a bed of dry sand, and built up to any height with alternate layers of sand and carrots, and in this way they may be preserved perfectly fresh and fit for use till the following spring. One great advantage that the carrot has over most other roots is, that, I never knew a beast to surfeit upon them, to refuse them, or to tire of them, while they possess more nutritive matter than any other, with the single exception of the potatoe. Pigs relish carrots and will thrive rapidly upon them, while cows and horses may be more safely fed upon them as their sole food with the single exception of the potatoe.—Carrots are not an impoverishing crop if the ground is properly treated, neither do they require so much a rich as a deep loose soil.

#### CABBAGES.

There are many varieties of the cabbage tribe; those most generally cultivated as field crops are the ox-head, the drum-head, and York, all of which grow to an immense size. As with potatoes so it is with cabbages: however, those who grow the latter looking more to size than to the quantity of nutriment. Upon the contrary, as a beast will generally prefer that which is most nutritious, as it is also in general most palatable, I prefer the sugar loaf, although not considered a field cabbage, to any that I have named. The cabbage requires better soil and more manure than any other root. The ground most fitted for producing cabbages is a warm clayey deep soil, as rich as possible.

The ground in which spring cabbages are to be grown should be well covered with manure and trenched up before Christmas. It should be again dug to a considerable depth in the first fine weather in spring, and, previous to the plants being put out, another good covering of manure should be applied and immediately covered in; the ground may be then allowed to remain

level until the operation of planting commences, when it should be stirred to the depth of about six or eight inches, refreshing the surface for the young plants. The seed should be sown in a well sheltered spot in the garden, about the middle of September, and may be planted out early in April. The crop will be fit for use about the middle of September, and furnishes an abundance of the very best description of food for milch or stall fed cattle, while hogs and sheep prefer it to almost any other.

Great attention must be paid to drawing the young plants from the bed, and also to setting them in the rows. I recommend the gardener of the district to be employed for this job, and I would advise him, his line being set and his plants ready, to furnish himself with a tub of strong tank water, which he may apply liberally with a watering pot without the rose to a dozen plants according as he sets that number. It is of all things necessary that the cabbage plant should be well steadied in the ground, and that the soil should be as well prepared as possible for its reception. The rows may be planted, if for sugar loaf, at a distance of two feet from centre to centre, and the plants may be of an equal distance in the row. Those of the larger kind, however, should be allowed a yard space every way, as they grow to a much greater size.

Cabbages intended for winter use should be sown in the bed about the middle of April, and may be planted out any time from the middle of June to the middle of July, the ground being well prepared and well manured. Cabbages planted at this season will furnish an abundance of the very best food for cattle from the middle of October to the following spring; care being taken to pull up the stalk instead of cutting off the head, as I fear cabbages, like potatoes, have got a bad name in consequence of mismanagement, it being a generally received opinion that cabbage is a very exhausting crop, a charge arising, I apprehend, out of the slovenly practice of cutting off the heads and allowing the stalk to remain, exhausting the ground to a greater extent than before the head had been cut off. Moreover, there is no better manure than a heap of cabbage stumps will make, if covered while fresh with a little good dung, and then turned and chopped and mixed with a small quantity of compost.

Field cabbages will attain as much as fifty pounds weight, sugar leaves from six to nine pounds, and the crop has the great advantage of standing the winter well, and of being wholesome food, and easily managed for all sorts of stock. In the after culture care must be taken to land the plants well with a hand hoe, to pick off snails and slugs when they make their appear-



ance, or, what is still better, to shake a little quick lime on the surface after each landing, immediately around the plant. The farmer who wishes to have an abundant crop of this excellent food, will find his advantage in occasionally applying a middling sized watering pot full of tank water to every twenty plants.

Should any of the plants become starters, that is, run up prematurely to seed, or should any fail, they should be replaced from the seed bed. The notion that cabbage gives a disagreeable taste to milk or butter is an erroneous one, and has been derived from the damage done to both by the practice of giving decayed stinking outside cabbage leaves to milch cows, whereas, a good sugar loaf in autumn, or a winter cabbage that has been touched with frost, is as sweet, as wholesome, and as nutritious food as a milch cow can eat. A great advantage that the cabbage has over the turnip is, that it stands the frost better, while it can be better got at in snow.

#### FLAX.

A certain quantity of flax being indispensable, as well as for the purpose of giving the family employment during the winter nights as of supplying them with a good stock of linen, I consider it necessary to lay down rules for its culture and management. Flax may be sown in any ground of moderate richness, and does not require so rich a soil as most other crops. However, I do not mean to assert that the crop will not be in proportion to the ground in which it is sown; good ground, if not too rich, producing the best crop.

The ground should be made very fine, and the seed should be sown as early as possible in March, at the rate of between two and three bushels per acre. Great care must be taken in the selection of the seed, as much depends upon its freshness and soundness. The seed should be covered either with a garden rake, or with a bush harrow, carefully made, and cautiously used. When the crop makes its appearance, the ground should be kept well weeded. When the flax is about six inches high, clover seed may be sown at the rate of about eighteen pounds to the acre, and may be rolled in, a process which, if performed by a hand roller, will rather serve than injure the flax.

If the seed is sown in March, the flax will blossom from the latter end of June to the middle of July, and, if intended for thread only, it may be then pulled; great care being taken how the work is performed, which is by catching the flax with the right hand about eight inches from the top, doubling what is over the hand by compressing the left hand upon it, and then with a gentle and sudden, but not violent, jerk, drawing it from the ground. The flax should be then tied up in small sheaves



and taken to a pond of clear water, where it should be deposited and allowed to remain for at least six days, after which it should be examined each day, by drawing a few stalks from one of the sheaves, and trying whether or no it has been sufficiently steeped to admit of the thread being drawn out of the outside lining, just as you would try whether or no the season would admit of oak trees being barked, by ascertaining if the strip runs freely; which will generally be the case when the wind is in the south or the west. When the thread can be easily separated from the outside covering, then the sheaves may be taken from the pond and spread thinly over a grass field or clean stubble, where it should be allowed to remain until it is perfectly dry, and until it has acquired a yellowish colour. It may be then tied up in small bundles as thick as a man's leg, and stooked like corn for a day or two if the weather is fine, after which it should be stored away in a dry place, with a hurdle under it, five or six feet from the ground, and with a good current of air.

As soon as the long nights drop in, the family may begin to manufacture the flax, the several processes of which are performed as follows:—It is first pounded, which may be performed either with mallets, a round polished stone, or by a flax pounder, which last instrument I recommend, and merely mention the two former as substitutes which are frequently used: however, as I before stated, each district will be very likely to have a sufficiency of machinery for the more easy performance of all such jobs, and therefore I shall calculate upon the flax being pounded by a pounding machine. This process softens the bark, and the flax is then ready for scutching, which is performed either by holding a lock of the flax twisted round the left hand, and hanging over a board about three feet high, along the side of which it is slashed, with a scutching handle which resembles a cleaver, being, however, much longer, and about five inches wide, and sharpish at the edge.

There is another instrument used for scutching flax which may be described as follows; it is about eighteen inches long, six inches wide, and hollowed out like the handle of a knife; a wooden blade about five inches wide and of equal length with the handle is fastened at the end with a wooden rivet and made to open and shut freely. This is placed upon the ground, and the woman holding the blade about the centre in the right-hand, puts the flax under the blade and continues to ripple it through this machine until it becomes so fine that it will run freely, although compressed nearly to the bottom of the handle; that is, at first the flax is merely drawn through as the blade and handle meet, and by degrees, as the process goes on, the blade is closed more and more after every five or six

rippings, until at length it runs freely, although the edge of the blade should nearly touch the bottom of the groove, and after which the flax is held in the left hand and slashed over with the right, until all the loose fibres of tow are removed from it.

This process takes the coarse tow off the flax, and prepares it for "heckling," a process which is performed by rippling the flax through the teeth of the heckle, of which there are various descriptions used, according to the fineness which it is intended to make the linen. As soon as this process has been performed, the flax is then twisted into hanks, after which it is spun into thread, and subsequently wove into linen, while the coarse and fine tow mixed together make good sacks or winnowing sheets.

As I mean in my rules for the Management of Small Farms, to assign a portion of each for the growth of flax, I have thought it necessary to give instructions for its cultivation in this preliminary number. No house-keeper should be without a plot of flax, and it is no excuse to say, either that he can have it dressed cheaper at the mill, or that he can buy linen cheaper than he can manufacture it, for experience will teach him that in both calculations he is mistaken, if he sends it to the mill, his family will be idle just at the time when they might be agreeably and profitably employed, and if he purchases his linen he will soon find out the difference between his own and that of his neighbour who has manufactured it for himself.

A great prejudice has been most ridiculously created against the growth of flax, from a belief that it impoverishes the ground, whereas there never was a greater error, as I have seen excellent crops produced after flax when the seed has not been allowed to ripen, and in which the whole damage to the land from a crop of flax consists. There is no better plan for growing clover than that which I have described, it admits of the seed being sown in the very best season, while the act of pulling the flax loosens the ground, and is of great advantage to the young shoots which have not, up to that period, deprived the flax of any of the required sustenance.

#### CLOVER.

Clover may be classed amongst the great variety of other artificial grasses; however, as it is my desire to steer clear of all complexity, I shall merely treat of that description which should constitute the small farmer's crop. I am, then, decidedly in favour of the broad leaved "red clover." I have before described how it should be sown with flax; however, as it may suit some to sow it alone, I shall give instructions for that purpose. Though clover requires but little covering, it will come to the greatest perfection in deep rich soils; how-



ever, land of a very moderate quality, if properly treated, will yield an abundant crop.

The best time for sowing is early in March, when the ground should be made perfectly fine, and well rolled in order to procure an even surface. The seed may be then sown and covered slightly by raking the ground well with a close-toothed rake. If care is taken in selecting fresh seed the crop seldom fails, and, as it quickly covers the ground, it stands in no danger of being choked with weeds. When the first crop is fit for cutting, the small farmer, when going to perform that operation, should take with him a wheelbarrow-full of the finest compost, and as soon as he has cut as much as he requires for the day, he should give the stubble a good sprinkling of the compost.

By this means he will ensure three or even four cuttings in the season of the very best description of food for cattle, growing pigs and sheep, the only caution necessary, being, care to bring cows to their full feed by degrees and never allowing them to drink water for some time after feeding; clover should be given scantily at first, and by degrees cattle may be brought to a full feed of it, but, if given too profusely in the outset, cows are very apt to burst. If it can be avoided clover should not be mown for cows in wet weather, or with a dew upon it, until they shall have been used to it for some time. There is no food upon which cows will give richer or more milk, or upon which growing pigs will thrive better. The difference in the appearance of a cow fed upon clover and upon vetches is very apparent—those fed upon clover will have plumper quarters and tighter carcase, while those fed upon vetches will have lank quarters and loose dropping bellies.

Clover will fat a cow, vetches never will, however, they are fine wholesome food and very efficient in bringing a new calved cow to a full flow of milk. If clover is sown without any other crop, about four pounds more seed may be used than if sown with flax or wheat; indeed, I am not very favourable to the practice of sowing clover with wheat for this reason, if it is sown too early it becomes so high at harvest time that the wheat must either be cut very high or a large quantity of the clover must be reaped with it, thereby losing the best of the straw in the first case, or rendering it necessary to delay saving the wheat until the clover is perfectly saved to prevent heating in the stack in the second case.

#### REMARKS.

My objection to keeping land in pasture has been already stated, and in order to support that objection, I have devoted *the previous chapters* of this work to the consideration of the



means by which the use of grass may be rendered wholly unnecessary; indeed, when a writer undertakes to expose any system which to him appears erroneous, it becomes his duty, if he has any other to propose as a substitute, to develop it in all its features and details so fully that, as a whole, it may be considered complete. I have thought well upon, and have had much practical experience in, farming, before I ventured upon so bold a step as that of a complete change of system; however, the more I think, the more I hear, and the more I read upon the subject, the more firmly am I convinced that the government of England will be compelled in less than one year from this date, to make the question of home colonization the principal feature of legislation. The erroneous system of agriculture which has been hitherto practised in this country, has, very fortunately, been a kind of saving's bank, of husbanding much richness in the land, which may at any time be abundantly yielded to a proper description of labour. In many previous chapters I have touched upon the rapid improvements to which the increased propagation of the turnip crop have led, while hitherto I have abstained from mentioning the greatest advantage which the higher classes of society have derived from the introduction of that root, as well as others, as winter food.

Before the English farmer had been instructed in the art of stall feeding cattle, it was customary to slaughter the required number of oxen for winter provision at that season of the year when grass feeding had lost its virtue, and when cattle were likely to fall off. This practice imposed the necessity of eating salt meat during the winter and spring months, whereas the present system of winter feeding with roots enables the farmer to bring his stock to market every day in the year, the supply being in some degree regulated by the demand. This alteration has led to the greatest improvements in the breed of cattle, by crossing the blood, until the best and most profitable description had been procured; while I would venture to assert that a natural consequence of a change from salted provisions to fresh food has been found most beneficial to the human race. If then, the change from salt to fresh meat has been beneficial to man, I think we may come to the same conclusion that fresh fodder for cattle during the winter months, would be an excellent substitute for dried up hay.

I may be told that hay is indispensable for some purposes. I deny it, or that it is at all necessary that one cock of hay should be grown throughout the empire. As it is my intention to conclude the second number of this work in the present chapter, it may not be amiss to devote a portion of it to facts which I have witnessed myself.

Some years ago a relation of mine purchased a two-year

old filly, the produce of a pony mare by a stolen leap, the breed of which had been in my family for a great number of years. The name of the gentleman was the Rev. John Henry Madras, and the history of the filly was this: she was fed upon boiled potatoes and nothing else, and his son hunted her from three years old to six, astonishing the field with her performance, and she was always fresher at the end of the day than any other horse. I resolved upon having the mare at any price when she was six years old, and I tempted the owner with a large price and bought her. I was sceptical upon the point of potatoes constituting her only food, and I tried her with the best hay and oats, both of which she refused; I then treated her to her old dish, and for two years that she was in my possession she seldom or ever tasted any other food than boiled potatoes. She was not even a large pony, and I have seen her hunted with the fastest fox hounds, which I was obliged to part with because they were so fast that the gentlemen in the neighbourhood could not ride with them, and I have seen that pony carry the huntsman up to their tails three days in the week, and never tire. Again, after riding her back during the whole week of the Clonakilty races, and having ridden her on Saturday from one o'clock till five, at that hour I put her into a handicap with five other horses, some of them thoroughbred, with more weight upon her than any of the rest, for two mile heats; she lost the first heat from being over weighted, when I changed the jockey, putting up a lighter boy without a saddle, she won the second heat, and distanced the field the third heat, and carried me afterwards a distance of some miles, prancing the whole way, and supped comfortably off a bucket of boiled potatoes. Now who will say that boiled potatoes are bad for the wind, or that hay is indispensable to the keep of horses?

Having now treated of the different crops which should constitute the produce of a four acre farm, I shall proceed in the next number to a developement of the means whereby the working classes of this country may become possessed, and at once, of a sufficient quantity of land to carry my plan into very extensive practice. I shall then proceed with minute and detailed directions for the proper management of small farms, with unabated confidence of success provided those most interested in the undertaking shall cheerfully co-operate with me in its accomplishment. Though but a short time has elapsed since I commenced this work, every day teaches me that stern necessity is bending the mind of the supporters of the old system to the expediency of change, while I am buoyed up with strong hope from the deep interest that the working classes are beginning to feel in the subject.



## HOW THE PROJECTED PLAN IS TO BE EFFECTED.

In the two previous numbers I have given directions for the cultivation of the several crops that I consider most necessary for the small farmer, while I have abstained from clogging the work with any notice of matters not necessary for him to know anything about in the outset: and the next duty that I am called upon to perform, is that of instructing the working classes as to the means by which land may be acquired for carrying out the plan. The morbid and insensate submission of the working classes of this country to the rule, domination, and control, not of the laws, but of the slave-owners, would have discouraged me from my present undertaking, had I not witnessed a desire upon the part of the people themselves to discover some practical means whereby they may rid themselves of the galling yoke of capital, more, far more, oppressive than the utmost tyranny of the law. Bloody as the English laws formerly were, they were mild in their bloodiest form, tame in their most savage aspect, moderate in their utmost vengeance, and preserving in the midst of the most reckless destruction, when compared with the havoc, the desolation, the persecution, and wholesale murders committed by the capitalists of England.

If you hear of a political prisoner being badly treated in prison; if you hear of a fellow-creature who has died in a poor-house; if you witness the execution of a murderer, whose guilt may either be doubtful, or mitigated in heinousness by some extenuating circumstances; you damn the law, denounce the institutions, and revile the government; while you tamely witness the victims of the capitalist, to whom death in any shape would be a relief. You see men of thirty years of age withered and prematurely decayed, reduced to the dire necessity of sweeping the streets for their taskmasters, although their virtuous parents had given large premiums for their instruction in some trade, protection for which, they vainly hoped, was guaranteed by the laws of England. You see these men, and wandering paupers still more destitute, and the only feeling that their condition arouses is, that of comparative satisfaction, that, *as yet*, your lot is preferable to theirs. The laws have not injured those men in any respect: on the contrary, there are laws upon the statute-book unrepealed, which, if administered, would protect them; and which are not administered because money has become more powerful than law, and money, not justice, is consequently the fountain of English law. This is a great and crying grievance, arising out of a great national debt,



the payment of the interest of which absorbs all other considerations, and turns our houses of representation into banking concerns and offices for the transaction of money matters, rather than legislative assemblies for the good government of the people.

Every country has a peculiar interest upon which its institutions are based, and all laws are made with reference to the main or leading interest; and eight hundred millions, with a ~~scavenger~~ of hirelings and mercenaries, parsons and paid syco-phants, ~~and~~ the pivot upon which our laws must turn, all are made, directly or indirectly, with the view of upholding this principal interest. Formerly, agriculture was the primary interest of this country, and hence laws were formerly made with reference to agriculture. Manufactures then sprung up, and laws for their government were grafted upon our agricultural stock. The great ambition to ensure ascendancy for the latter, embroiled us in expensive wars with the world, and the debt, the fruit of those wars, has exhausted both stock and graft, and our government is consequently compelled to sink all consideration of agriculture and manufactures, further than they may be made subservient to our monetary system. Hence, then, we arrive at the conclusion, either that the debt must be wiped off or compounded for, or that some expedient shall be devised, which will have the effect of relieving the non-debtor from its pernicious effects, and of saddling it upon the real debtor, who will very speedily find a remedy for an abuse which only affects himself, while he will be slow in looking for it as long as other shoulders bear its weight.

In my several communications to the working classes upon the land question, I have endeavoured so to familiarize their minds with the subject, as to prepare them for the adoption of the small farm plan upon such a system as would be most likely to lead to a successful result. One thing is quite clear, and all I believe have now seen it, it is this—that the government is not inclined to make any organic change in the constitution, while, without such change, it is not able to suggest any plan for the ~~correction~~ of those social evils which afflict society, without incurring the disapprobation and opposition of the several classes who have lived, thriven, and prospered upon things as they are. Having, therefore, arrived at the conclusion that the people have nothing to expect in the way of change from the government, it becomes the paramount duty of their friends to point out how the required change in their condition can be effected without force or fraud. And although it is quite clear that such change would be unpalatable to the re-

vellers in abuse, if produced by an angel from heaven and in strict accordance with the Almighty's will and in conformity with the terms of his imperishable laws, yet have I ventured to brave all opposition for the general good. Not only have I been opposed by a portion of the press; but, still worse, I have met with the ignorant snarl of some working men, or rather men who profess to work for working men, and whose opposition is based upon personal vanity, disappointed ambition, hostility to myself, and a jealousy founded upon their own ignorance of the subject.

It is a very lamentable fact, that, in the midst of general distress, the people's professing friends invariably meet propositions, which do not originate with themselves, with a cold-blooded and vindictive opposition. Some foolish egotists have gone so far as to draw conclusions from the present state of Ireland, where they assert that the small farm system has produced slavery, dependency, and misery, for the purpose of discouraging the English working classes from an agricultural life. Such writers are mere wordy copyists, puffing theorists, ignorant dogmatists, self-sufficient coxcombs, who know no more of Ireland than they know of Japan, and who are as hopelessly ignorant of the capabilities of the land, as the ox that treads, or the bird that flies over it. The curse of Ireland has been, not the small farm, but the large farm system, while the requirement for a provision for the poor has arisen out of the abrogation of small allotments. I never approved of the political use made of Irish forty shilling freeholders; while the disfranchisement, and consequent ouster, of that numerous body has led to the present state of pauperism by which Ireland is cursed, and has given rise to a bad system of poor-laws as a substitute.

Those who are ignorant upon the question of Irish agriculture, and who desire instruction upon the subject, will do well to read the work of that excellent gentleman, Mr. Blacker, upon Small Farms; always receiving it with great caution, for the following reasons:—firstly, it is written by the land-steward of a nobleman, who would not find it his interest to go into a searching enquiry of the title, the powers, and the uses made of those powers by the landlord-class. Secondly, it merely developes the result of some very trifling experiments made with success, without reference to any general principle. Thirdly, he speaks more with reference to the improvement of the land than with reference to the improvement of the tenants' condition; the one being permanent, and conferring a permanent benefit, through increased rent, upon the landlord, while the other is merely temporary, and is too often the cause of



ouster, as a means of acquiring increased rent, while it entails an additional rent upon the improving tenant at the expiration of his lease. But, above all, the objection that I have to drawing any conclusions from Mr. Blacker's book beyond the irrefutable proof of the capabilities of the soil which it affords, is, that in almost every one of his reported cases we find improvement tested by the addition of a horse to the small farmer's stock; although his holding may not consist of more than seven or eight acres. Moreover, the average size of farms treated of in Mr. Blacker's book usually consist of from four to five times as much land as one man can profitably manage.

As it is necessary that I should answer the sophistries of those ignorant parties who would urge the state of Ireland in opposition to the small farm plan, I may here remind them that every advance in the large farm system has led to increased pauperism in Ireland, while it has contributed to an increased glut of Irish labourers in the English market. The first proof that I adduce in support of this assertion is, that the ousting of the forty shilling freeholders led to great distress. The second proof that I adduce is, that the ousting of Catholic tenants from small holdings, upon which the Reform Bill conferred the franchise, has considerably augmented that distress. The third proof that I adduce is, that the rage for introducing Scotch farmers, to carry out the system of feeding upon turnips, has induced many landlords to oust small tenants, with a view of possessing themselves of the farms, in the hope of redeeming their shattered fortunes by an improved system of agriculture; while, under a general summary, it should be understood that my system of small farms would be incomplete unless based upon the principle of a real "fixity of tenure;" the want of which in Ireland operates more injuriously against the small farmer than it does against the large farmer. Thus, the large farmer, with a lease, or accepted proposal on blank paper, which, when stamped at any time the tenant pleases, may be converted into an equitable title, may contend against the legal persecution of his landlord; while neither lease nor accepted proposal are any protection whatever to the tenant who only occupies fifteen or twenty acres of ground, and who is unable to resist the demand of the landlord for its surrender, whenever he may think proper to require it. Hence, the ability of the landlord to repossess himself of a small farm discourages the tenant from increasing its value even by industry, as the improvement is sure to lead either to additional rent or a turnout. This very system of bidding over the heads of small farmers with leases, who have improved their little holdings, has led to more murders than any other circumstance—to more murders,



may, to every murder that has been committed in Ireland for the last forty-three years, and each and every one of which are chargeable upon the tyrant landlords, land-sharks, land-agents, and middlemen, and not upon the maddened, plundered, infuriated peasant, who, in the wildness of despair, takes that vengeance in lieu of the satisfaction which the law denies him.

From these facts, then, the English reader will learn that Irish pauperism, Irish crime, Irish slavery, and Irish murders, are consequences of oppression and misrule, and that the want of the small farm system, and not its existence, is the immediate cause of Irish distress. I defy any man living to point out any single act of treachery committed by an Irish peasant arising out of any dispute in the adjustment of which he had received anything approaching to justice. The fact is, that foreign invaders have possessed themselves of the country, and would stigmatize the natives as barbarians for their virtuous resistance to the most cold-blooded tyranny, committed under the plea of loyalty, necessity, and devotion to English connection. Here, though out of place, I may be permitted to say, that the English people never have been the oppressors of Ireland, while the Irish-English have been the ruin of both countries, invariably constituting the English minister's strength for the maintenance of Church ascendancy and suppression of popular rights. To correct the several evils of which all now complain, to reconcile the people of both countries in a bond of union and brotherhood, to destroy the social inequality so destructive of peace, prosperity and harmony, I see no remedy but an abandonment of our present artificial position, and a nearer approximation to the laws of nature. With these views, then, I proceed to develope the means by which society may acquire a footing so firm, that its peace shall not be in danger from the madness of despair, from agricultural restrictions, commercial speculations, or ministerial change.

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Since I first broached my plan for acquiring a sufficiency of land wherewith to carry the small farm system into extensive practice, I have made it a portion of my daily business to enquire into the probability of being able to accomplish the object without the intervention of parliament; and in my research I have discovered that so great is the pressure of the times, which means the pressure of gambling-debts, mortgagees, and creditors, that land may be purchased in the wholesale

market with as much facility as cotton, woollen, or earthen-ware. I have arrived, then, at the conclusion that the land may be had, and our next consideration is naturally directed to those means by which it may be acquired. In this latter consideration, however, a collateral question very naturally arises; it is this:—As the clubbing of the pence of the poor people is the only means whereby the system can be carried out, we must investigate the several causes that operate against it. Firstly, then, the people have discovered that even the wealthy, the favoured, and the law-protected, have not been able to guard themselves against the machinations of bubble companies, banking companies, improvement societies, mining societies, colonization societies, emigration societies, and the thousand and one other traps that are enticingly baited with fascinating prospectuses, wherein even the possibility of failure is the one only thing never mentioned, while the certainty of success is confidently insured.

Want of confidence, then, is one very natural cause that will operate against the success of the plan. Another great difficulty which presents itself arises from the fact that a much greater number must become contributors to the fund than could derive immediate benefit from it; for instance, suppose one million persons to subscribe sixpence a-week each, it would amount in one year to £1,300,000, which sum, if laid out in land worth a pound an acre, would purchase 65,000 acres at the usual rate of twenty years' purchase. As it is my desire to make every thing so plain that every man who reads it will be able to understand the meaning without applying for assistance, I must tell you how land is bought. Suppose an acre of land lets for a pound a-year, the way to estimate its value, if bought out and out, is by multiplying the amount of yearly rent by the number of years' purchase at which it can be bought, and that is the price given for the land for ever; for instance, an acre of land let at a pound a-year can be bought for ever for £20, or twenty years' rent being paid down for it. The sixty-five thousand acres which may be purchased with the produce of the funds subscribed by a million contributors, if subdivided into farms of four acres each, would only yield 16,250 allotments, thereby only admitting of 16,250 of the one million subscribers being gainers by the project.

As, however, it would be extremely unjust that there should be so many blanks to so few prizes, that is, sixty blanks to every prize, I would propose the following remedy, which I think would give general satisfaction, and, in order to explain it in the most simple way, I will make my calculations upon one allotment of four acres, and which would require the con-



tributions say of sixty to purchase it. If, then, sixty men subscribe eighty pounds in one year, and if that eighty pounds will only purchase four acres, only one man can derive benefit from the scheme. When the land is purchased however out of the general fund, if A gets the four acres by lottery, he returns a rent of four pounds a-year, or a pound an acre for it, thereby leaving to the fifty-nine less fortunate speculators the whole amount that they had subscribed, as well as his own subscription, to be divided amongst them, that is, he has four acres of land for four pounds a-year as his share, and they have the four pounds a-year for ever for their share; thus, while one of the sixty is more fortunate than the others, none of them are great losers.

However, in all cases where a very extensive project is to be carried out, there must be some amount of risk, and it is my object to reduce that loss to the lowest possible amount, and at the same time to preserve the subscribers from risk as far as possible. In order then to break down the great inequality between the one who draws the prize, and the fifty-nine who draw the blanks; while I am unable to hold out the prospect of a prize to each I would submit the following as my plan for reducing the chances of loss. Now, let me be distinctly understood, and if the reader shall pass over all other chapters without much thought, I beg, I implore, nay, I pray of him, to bestow his very best attention upon the plan which I propose for his redemption.

#### PLAN OF DISTRIBUTION.



Sixty persons subscribe eighty pounds in one year, which eighty pounds is to be laid out in the purchase of four acres of ground, worth four pounds a-year for ever—only one person can become possessed of the land. Supposing the land to have been purchased by an individual, or a society, for the benefit of the sixty subscribers, those sixty subscribers go into a lottery, wherein there are fifty-nine blanks and one prize, A gets the prize, and with it a lease for ever of four acres of ground, at four pounds a-year, executed by the individual or the society in trust for the following eight persons:—after the fifty-nine blanks have been drawn, the fifty-nine persons drawing them go into another lottery, wherein there are eight prizes of ten shillings a-year for ever each, that is, the four pounds rent conditioned to be paid by him who draws the land, is divided into eight shares of ten shillings each; the parties who draw those eight prizes will have thus received ten shillings



a-year for ever for twenty-six shillings subscribed, and which at five per cent. would sell for ten pounds. Thus, out of the sixty, one would have received four acres of land at four pounds a-year as his share, and eight others would have received ten pounds for twenty-six shillings paid, making somewhat more than one good prize in every seven ticket-holders; while, if the speculators were anxious to reduce the chances of risk still lower, they may divide the four pounds a-year into sixteen prizes of five shillings each, and worth five pounds each, and thus there would be seventeen prizes in every sixty, or in the proportion of two prizes to seven blanks, thus reducing the chances of either extraordinary gain upon the one hand or injurious loss upon the other.

The scale which I have laid down for the disposal of four acres would equally apply to four million acres, or any quantity of land. I will suppose, for instance, a district of one thousand acres, distributed by lottery amongst two hundred and fifty holders, paying four pounds each, or a thousand a-year; and suppose that to have been purchased with funds raised as I have described, we are then to consider the means whereby those who are entitled to the ten shillings a-year each, or five shillings a-year each, are to be paid. The land, subdivided as I have described, would be worth five years' more purchase, in consequence of the increased security that the additional labour would confer upon it. However, I leave that out of the question, or for after consideration. If it was worth five years' more purchase, each farm of four acres would produce a capital of twenty pounds more than was originally given for it, that is, in the wholesale market, at a pound an acre, it was worth twenty years' purchase, or eighty pounds; whereas, in the retail market, it would be worth twenty-five years' purchase, or one hundred pounds.

However, the thousand acres, subdivided into two hundred and fifty farms, would not want a purchaser of the rent of a thousand a-year, paid by the several holders, for twenty-four hours. It would constitute better stock than any for which the government are security; while, with the lease for ever, the tenant would be made wholly and entirely independent of the purchaser. The purchase-money would pay the sums to which the several parties who drew money-prizes were entitled, and thus, in less than one week in each year, the whole business may be transacted.

It may be asked, how a hand-loom weaver who may become possessed of four acres of land is to commence operations? and, in order to provide for such a happy necessity, I will lay down another plan. Suppose a thousand acres of land to be

in the market, worth a thousand a-year, or twenty thousand pounds to buy it out and out; a very usual practice in such cases is, to pay ten thousand pounds—one half the purchase-money—allowing the other ten thousand pounds to remain as a mortgage upon the estate. In such case, if twenty thousand pounds had been subscribed to purchase the thousand acres, ten thousand of that sum would be applied as purchase-money, and the other ten thousand may be divided into shares of forty pounds each, which would leave that amount for every one of the two hundred and fifty occupiers between whom it was divided to commence business upon; and admitting that such subdivision increased the value of the land by five years' purchase, or by the amount of twenty pounds in every four acres, that sum, added to the forty, would leave a capital of sixty pounds to commence business with.

I have now developed my scheme in its most simple, most harmless, and most democratic form; yet, I doubt that I have developed it in the most fascinating shape, inasmuch as the people themselves, the very working classes, are more captivated by fascinating prospects than perhaps any other portion of the community; and I do not blame them; it is natural; and I can well understand sixty working men who have subscribed eighty pounds for any particular object, unanimously preferring a chance to the whole, with the risk of losing their subscription, to the chance of being moderately compensated for the loss of the great prize. In such case, then, it would be quite competent for the subscribers to agree amongst themselves upon all questions of risk, increasing the comfort of the most successful by diminishing the chances of those more moderately so.

Another plan by which my scheme could be carried out immediately is, by the appropriation of funds at the disposal of the several trades, benefit, and other societies; and as the parties in such case may be brought into immediate contact, without the interference of a third party, I should be glad to find the several trades accomplishing the double good, of securing good interest for their own funds while they may be the means of conferring happiness upon their poorer neighbours. In fact there is no class of society in England which has so great an interest in the cultivation of our domestic resources as the several trades. Carpenters, builders, tilers, stonemasons, slaters, nailors, painters, plumbers, glaziers, blacksmiths, ironmongers, miners, colliers, bricklayers, block-printers, hatters, stationers, bookbinders, silversmiths, goldbeaters, tailors, shoemakers, butchers, bakers, sawyers, and toymakers, and all persons who are engaged in building, repairing, furnishing or supplying houses, are beginning to discover that every cottage



abandoned for the cellar is a competitor against those who build, and the loss of a customer to those who supply. And whilst speaking of the trades, I must say of them to my sorrow, that, with the exception of a very few, and, generally speaking, with the exception of those of Manchester, Aberdeen, and a few other towns, they are the most prejudiced, the most haughty, the most imperious and time-serving class in the community. The good sense, however, of those who have reasoned upon their position, is now forcing the hitherto apathetic of that body into thought and action, and to that improved state I look for the assistance of the trades in carrying out my project. In truth, I would prefer the experiment being made by them, inasmuch as it would divest the scheme of all liabilities to jobbing and speculation, because their officers are for the most part men of business, men of character, and men of talent.

I shall then proceed to lay down a scale whereby the plan may be carried out by a trade society. I will suppose twenty thousand pounds to be at their disposal, and inasmuch as the great object to be achieved by political economy is to set the producing powers as actively and profitably to work as possible, and as capital, when judiciously applied, may be considered an essential for carrying out the project, I shall here say a word as to the relative value of ready money, when profitably and unprofitably applied. At present money is dear at two per cent., because there is more in the market than is required for the working of the system; whereas, if the retail labour market was opened, I unhesitatingly declare that the required amount of money to give an impetus to the required amount of labour, would increase its value from two per cent., at which it is now dear, to twenty per cent., at which it would be then cheap. Not that I would anticipate such a rise; not that such a rise would or could take place, because free labour would speedily create capital for itself; but I mention it preparatory to entering upon a consideration of the propriety of trades' societies vesting their money in the purchase and improvement of land.

Suppose, then, that a society having twenty thousand pounds at its disposal purchases a thousand acres of land, by paying ten thousand pounds down and five hundred a year, or five per cent., upon the remaining ten thousand pounds as rent; and supposing seventy pounds is required for building a suitable house upon every four acres: as the thousand acres would be subdivided into two hundred and fifty farms, it would require seventeen thousand five hundred pounds to erect the necessary buildings; obliging them to raise seven thousand five hundred pounds to add to the ten thousand pounds remaining after the



purchase-money. If we add to this ten pounds capital for each to begin with, we would require two thousand five hundred pounds more, making altogether a capital of thirty thousand pounds expended, and five hundred a-year, equal to ten thousand pounds more, payable in rent—in all forty thousand pounds. For such a house and four acres of ground they would receive fifteen pounds a-year, and it would be a very moderate rent. For this they would have expended forty thousand pounds, and would receive annually three thousand seven hundred and fifty pounds, or fifteen pounds a-year for each farm of the two hundred and fifty; so that it would leave them over nine per cent. interest for the capital expended; while each small farmer would have a good house with the requisite quantity of out-offices, four acres of ground, and ten pounds in hand, for fifteen pounds a-year, a rent which the milk of one cow would more than pay.

The farmer, guaranteed in such a holding for ever, would have no difficulty in raising the required amount for furnishing his house, and supplying himself with the necessary stock. If a division of labour is considered good, a division of capital must be also good; and in order to relieve this plan from all ambiguity or difficulty, the act of purchasing may be confined to the trades' society, while possession, with a lease, would insure competition amongst capitalists in the erection of the necessary buildings, and for which the land and labour would always constitute more than an ample security. However, in the performance of any great undertaking it will be necessary that suitable machinery should be put in motion, and if I shall have been in any way instrumental in leading to the invention of new machinery, or the improvement of the old, for working out so desirable an object, I shall have fully discharged my portion of the duty, and all that I have to desire is, that those who are sceptical or obstinate will well weigh the proposed system as a whole, rather than at once damn it from their ignorance of any part of it, or their personal dislike of the author.

The public mind is now strongly leaning on the hope of change of some sort or other, while two plans only are proposed by the leaders of public opinion. The one is, to insure high wages, cheap bread, and plenty to do, by what is called such an extension of trade as would render the employment of all our surplus population profitable to the master manufacturers as producers, and also to the Exchequer as consumers. The other is, a system of colonization, or of locating the population made surplus by machinery upon the lands of foreign countries, in the hope that their colonial dependency upon England will

make them profitable consumers of the produce of their brother slaves. Now, these are the two plans; the one free trade, contended for by the manufacturer: the other emigration, supported by the landlords. We have had so much discussion upon the question of free trade already, that I shall abstain from further remark upon that subject, and shall say merely a word upon the subject of emigration, and the purposes which it is intended to serve. I have been obliged, and most reluctantly so, to mix up a little of politics in this work, and I am again compelled to do so, in order to reconcile the anomaly of agricultural labour being patronized by English landlords when applied to the improvement of the land in British colonies; while they use all and every means, in conjunction with the master manufacturers, for substituting artificial for manual labour at home.

The strong hope with which landlords and manufacturers rely upon commerce with our colonial dependencies, arising altogether out of the improved state of agriculture in these colonies, must at once convince every man of the value of an improved state of agriculture; while the same circumstance must lead all men to enquire wherefore it is that agriculture, to which so much importance is attached, firstly, as a means of employing our surplus hands; and, secondly, as a means of creating a market for our artificial produce, should be so much neglected at home. Would not the rational man suppose, that if the labour of an Englishman, expended in Australia, the Canadas, or New Brunswick, would be beneficial to England, the labour of the same man, if expended in an English county, would be still more beneficial? And if he arrives, as I have done, to the conclusion that it would be so, he will then naturally ask why it is not encouraged? and this is the question which I shall answer. It is not encouraged, because our strong government at home can hold our weak colonists in subjection; whereas, if the land was opened as a free-labour market at home, the English labourer would very speedily discover his own value, and once having arrived at a knowledge of that fact, he would demand such protection for it, as would ensure him in the possession, not of such portion as may be spared to him after the wants of an idle aristocracy are supplied, but in the full enjoyment of the whole, after his just contribution towards the maintenance of such institutions as were necessary for the protection of his rights and privileges.

The aristocracy of this country, that is the owners of land and the owners of money, will try every shift and device before they will allow Englishmen the means of judging of the real value of their labour; and the land being the only market in



which the standard can be established, from that they will exclude them until tempted or bullied; and, as I prefer temptation to intimidation, I have suggested the plan by which the former may be carried into effect. One thing must be always borne in mind; it is, that although the prejudices of a class may be clubbed and united against the people, nevertheless their power, if clubbed and united, may be made the means of destroying and breaking down the strongest union of their opponents. For instance, the landlord who has an estate to sell, will not allow his prejudice to operate against his interest, and he ceases to be a member of the landed union the moment that he is tempted by a union of the popular funds to estrange his property. Thus I have shown, firstly, that the landlords are opposed to the subdividing system, because the possession of social comfort leads to a demand for political power; and, secondly, I have shown how the union of the working classes, if complete, would break down the prejudices and the strongest union of the landlord class.

It is very probable that my readers may consist, for the most part, of the working classes, many of whom will bear in mind the fact, that now for more than nine years I have endeavoured to instil into their minds the great power they possess. I have shown them upon more than one occasion the position that they might very easily acquire, by husbanding a certain amount of their wages annually. I have explained how the labourers, in a few years, may become possessed of the whole Church property of the country, or of any other description of property, in the purchase of which they chose to invest their funds. The mere gratification of a whim is one thing, and their capability is another thing;—the last I shall treat of.

Suppose, then, that five millions of the industrious classes of this country, and under which head I class small shopkeepers and tradesmen, were to save the sum of two shillings per week, it would amount to more than twenty-five millions per annum, and would purchase one million two hundred and fifty thousand acres of land of more than an average quality, and which, if subdivided into farms of four acres each, would make three hundred and twelve thousand five hundred allotments, and, allowing five to a family, would support in affluence one million five hundred and sixty-two thousand five hundred persons upon the land, while it would create a population of professional men, shopkeepers and trades, of at least one-fifth of that amount, or three hundred and twelve thousand five hundred, making in the whole a happy community of nearly two millions; returning an interest of nine per cent. for the capital expended, and creating surplus produce over consumption, or,



in other words, leaving for expenditure in the artificial market the sum of THIRTY-ONE MILLIONS TWO HUNDRED AND FIFTY THOUSAND POUNDS ANNUALLY; made up of one hundred pounds worth produced annually by each farmer. I am not so extravagantly enthusiastic as to look for anything like such a fulfilment of my plan, and I merely state the fact for the purpose of showing that the amount of money paid for the support of a state church, a standing army, and useless navy, in one year, would purchase land enough for ever to make one-seventh of the population happy for ever, to leave nine per cent. interest for the capital expended, and over thirty-one millions annually for expenditure in the artificial market. If we had expended what was unjustly paid to the West India planters for the manumission of their slaves in locating our own slaves upon our own land, England would by this time have been the happiest, richest, and greatest nation upon the face of the earth.

Before I propose the machinery for carrying out my scheme, I beg leave to submit the following simple facts, authenticated by ample authority, and the reader having full power to satisfy himself by an application to the parties referred to. In the *Labourer's Friend Magazine*, I find the following account, which I submit to the reader whole and entire.

‘CHEAP FOOD AND GOOD WAGES.’

‘The following extraordinary instance of what may be accomplished by spade husbandry has been furnished by a correspondent who took the particulars himself from Samuel Bridge, in the presence of another gentleman, steward to a nobleman, and we have his authority for saying he will be happy to answer any enquiries our friends may wish to make on the statement he has given.

‘Samuel Bridge, of Stock Green, near Feckenham, in the county of Worcester, has occupied four acres of very inferior stiff clay land, on the blue lias, for twenty-seven years. He grows two acres of wheat and two acres of potatoes every year, and sells all his produce, even his wheat straw. The stubble from the wheat, and the tops from the potatoes, serve to bed down his pigs, and the manure from this source, and from his privy, is all that he gets for the use of his farm.

‘The crops obtained are not at all extraordinary for the result of spade husbandry; but it is very extraordinary that such crops, with so little manure, and from bad land, could have been obtained for a quarter of a century together; and, coupling the duration of the operation with the quality of the land, it must be admitted that nothing more is needed to prove

the superiority of the spade system over the plough system; for although the same crops are obtained by the plough on good land, it is quite certain that the plough would fail to compete with the spade on equal qualities of soil.

'The produce obtained on the average of a quarter of a century, by this exemplary man, is twelve tons of potatoes per acre, and forty bushels of wheat per acre, and the following account may be taken as a close approximation to the truth :

Sold annually—		
24 tons of potatoes, at 2 <i>l.</i> 10 <i>s.</i> per ton .....	£60	0 0
80 bushels of wheat, at 7 <i>s.</i> .....	28	0 0
4 tons of wheat straw, at 50 <i>s.</i> .....	10	0 0
	£98	0 0

' Deduct as under—		
Manual wages, 4 <i>l.</i> 6 <i>s.</i> 4 <i>d.</i> per acre		
per annum. ....	£17	5 4
Seed potatoes for two acres .....	5	0 0
4 bushels of seed wheat (being dib- bled), at 7 <i>s.</i> 6 <i>d.</i> .....	1	10 0
		23 15 4

' Subject to rent and parochial payments..... £74 4 8

' It may be safely stated that the average of all the land in England, under cultivation, does not yield 5*l.* per acre gross produce, and also that 20*s.* per acre per annum is more than is paid in manual wages; whereas, in this case, of very inferior land, above 28*l.* per acre gross produce is obtained, and 4*l.* 6*s.* 4*d.* per acre per annum paid in manual wages; or, in other words, you get by the spade, on small allotments, near six times as much produce, and employ four times as many people, as by the plough.

' It is only necessary to add, that this useful member of society has bought his four acres of land many years since, and paid for it out of his savings. He has also built himself a comfortable cottage and out-buildings thereon, and is the owner of considerable property besides.

' It should be mentioned also, that, during two years of the period of twenty-seven years, Samuel Bridge got his land ploughed gratis by his neighbours, but found the injury so great by the treading of the horses, that he reverted to the spade, and says it answers his purpose better to pay for digging than to have it ploughed gratis.'

• If that extract, authenticate as we must suppose it to be,



and bearing the very strongest marks of truth, while it is rated much under what might be produced from it by a complete system, does not open the reader's eyes, I cannot hope to make much impression by mere assertion borne out by practice. It will be seen that the gross amount set down is 98*l.*, while the potatoe crop is estimated at an immoderately low rate. That, further, from 98*l.* is deducted the price of labour which Bridge appears to hire, having by his industry acquired an honourable title to that ease which he has honourably purchased. It will be seen that the labour expended upon those four acres is only estimated at 4*l.* 6*s.* 4*d.* per acre, or 17*l.* 5*s.* 4*d.* upon the whole four acres; and the consequence is a restriction to two crops, the one wheat, being not of one-third part the value of several others which may be produced, while I allow the expenditure of an able-bodied labourer's work every day in the year upon the four acres, and also make allowance for the assistance of his wife and children in such labour as they should be engaged in; so that if we take the calculation of Bridge thus, we find that the profit upon 17*l.* 5*s.* 4*d.* worth of labour amounts to about 70*l.*, leaving 4*l.* 4*s.* 8*d.* for rent, which is more than, from the description of his land, we are warranted in setting it down at. Bridge, it will be found, sells all his straw and relies upon labour as a substitute. He sells his potatoes instead of consuming them and returning the manure to the ground, and yet, allowing his labour to be worth three shillings a day, or say a pound a week for seventeen weeks' labour in the year, he receives 90*l.* over and above rent, rates, taxes, and seed, or nearly one pound a day for every day's labour expended.

In holding up Bridge's industry and success I must be careful, however, in cautioning the reader to receive the account as a mere comparison between the best large farm system and the worst small farm system. The best large farmer in England, say cultivating a thousand acres, could not make a profit of 22*l.* 10*s.* an acre, or 22,500*l.* a year of the thousand acres, while it would be impossible to practice a more injurious system than that followed by Bridge, and by which it appears he has nearly a hundred a year for about a hundred and twelve days labour. The facts narrated, however, fully bear me out in two important assertions—the first is, that upon each farm there may be produced more than a sufficiency of manure for its most perfect cultivation by the application of labour, and, secondly, that, by a very few years' industry, the working farmer has it in his power to purchase any quantity of land that he is able to cultivate to advantage by his own labour. It appears that Bridge has refused to allow his land to be



ploughed for nothing, and that when ploughed the crops fell off; and it also appears that, by his own industry, he has become possessed of considerable property, whereas, had he confined himself to the growth of only one acre of wheat, one acre of potatoes, and the remainder to the production of green crops, and had he not sold his produce raw, he might by this time, that is, at the end of twenty-seven years, if he is a single man, have purchased two hundred and fifty acres of land and more, worth one pound an acre for ever.

I shall now proceed to put the reader in possession of the machinery by which I hope to see my plan carried into full effect, and my object shall be to divest it of all those drawbacks which I have mentioned in the beginning of this chapter, as being calculated to dishearten working men from entering into any speculation. If, however, I can inspire them with a belief in my plan, and confidence in the machinery for carrying it into effect, I have the most thorough conviction that in one year from the date of its commencement, such a universal feeling of surprize, delight, and satisfaction would be the result, as was never felt by the working classes of this or any other country.

#### MACHINERY FOR WORKING THE SMALL FARM PLAN.

All those who have been in favour of the allotment-system, and those who have recommended attention to the land, in a sweeping or particular manner, as well as those who have experienced disappointment from the bad working of any partial system that has been tried, and that has failed, will exclaim, Oh! we have seen all this before, and it has failed. However, I must observe in the outset that a principle must be tried before it is condemned, and in order to its fair trial, it is indispensable that it should be worked with its own, and not with machinery conveniently borrowed from another principle. Now, such is the complaint that I have to make; such are the reasons for my asserting that the plan has never yet been even tried. It has been so mixed up with prejudices, follies, and absurdities, of one sort or another, that everything like fair trial has been prevented. I will state some of the causes that have hitherto operated against the success of all those experiments that have been made, and, as a sweeping illustration, I may direct attention to the great dissatisfaction caused by the failure of the co-operative store system.

That system was an approximation to the community-of-labour principle; and from the fact of its investing one man,

or a committee of men, with power over the property of other men, it failed to possess that invigorating spirit of self-interest so essential to the success of any undertaking. The fellow-feeling, or *esprit de corps*, considered so necessary for holding individuals together in one common cause, actuated by one common feeling, and leading to one common object, is an essential to the well-being of that community, consisting of individuals having one common interest. If, however, a disparity exists between individuals, that want of fellowship fails of giving to the body that individuality of feeling so necessary to its existence.

I have framed my plan, then, after long and mature deliberation, with a view to the removal of those several difficulties which have hitherto stood in the way of fair trial. I cannot, for the life of me, be brought to believe that a hundred men clubbing their labour will feel as strong an interest in the general undertaking as they would individually feel if each man relied upon his own resources, and enjoyed the undivided fruits of his own labour. For instance, I feel convinced that a community consisting of one hundred men, occupying four acres each, would be a more contented body, a more industrious body, and a more united body, than a hundred individuals located upon the same four hundred acres, managed by the master minds of the whole body; while the community of self-acting individuals would have the advantage of the superior knowledge and skill of the master minds of their body. I believe that in what is called the community-principle, improvement is likely to stop or flag at that point at which moderate comfort is insured; whereas it goes on to the extreme limit to which it can be pushed, if impelled by individual emulation.

I am quite prepared to justify and to recommend the co-operative system of labour with individual responsibility and possession—thus, suppose twenty occupiers of four acres each to constitute a section of a district community, and suppose the season for performing any particular work should last for twenty days, and that the performance of that work would take the labour of one individual for twenty days, or the labour of twenty individuals for one day: again, suppose of the twenty individuals the harvest of some is ready while that of others is unripe, in such case those whose harvest is likely to be late will give their labour to those whose harvest is ready, thereby enhancing the value of their own labour, not immediately required, to that amount which it would be worth at the highest price, having insured, by the exchange, the labour of their neighbour at the moment when his assistance will be of the greatest value. This makes his labour, not particularly valuable to himself, of



its full value when required by the man whose harvest is ripe, and makes the return equally valuable when his own is ready for the sickle.

In the case of the twenty men clubbing their labour to take advantage of the season—suppose in planting potatoes—there, each farmer has his whole work done in one day, instead of being twenty days at it, while it is all done within the prescribed season. It may be said, yes, but one poor fellow has to wait till the last; well, suppose he has, it would be so in community; for allowing that the same number in community had the same number of acres under potatoes, the last acre that was planted would represent that of the man whose last acre was planted under the co-operative system. Again, if the clubbing of twenty would be too precarious, ten may limit the work to two days, and thus vary the system, and as I have no doubt that the necessity for such a co-operation would very speedily manifest itself, the arrangement for carrying it into perfect practice would be made by those parties to whom it would be an advantage.

I attach something of a more limited definition to the term "home," than the mere politician, and would rather prefer that limitation which the poet assigns to it. I do not think that "country" designates a man's home. I do not think that a compulsory residence in any part of that country constitutes what the poet calls "home, sweet home." I think home means a residence in the selection of which man has something like a choice, and for that reason I have always objected to the necessity under which the community-system compels strangers to migrate from different parts of the country to one common habitation.

As I never speak at an abuse, having, I trust, the manliness to attack it openly if it requires exposure, and as my remarks under this head may be supposed to be directed against the plan put into practice by Mr. Owen, I beg leave in the outset to state, without giving any opinion of the social principle, that I look upon the experiments made by Mr. Owen for the improvement of the physical condition of all classes of society, but more especially the working classes, as having far exceeded in utility those of any other individual who has ever lived before him. It is all very fair for those who differ from Mr. Owen upon questions of religion, to hold up his peculiar notions upon that subject, to such contempt as can be enlisted against them; while it would be sycophancy of the vilest order to reject his plans for social improvement, because his religious opinions do not square with the notions of other men. I very much prefer the community-principle, as practised by Mr. Owen, to the present system; while I very much prefer the



co-operative system, with individual responsibility and possession, to the community principle.

A healthy state of body is indispensable to a healthy state of mind. A diseased body will lead to a disordered mind. A healthy body will lead to a vigorous mind, and as I believe religion, pure religion, can stand investigation, give me the man who will best prepare the human mind for that state wherein it will be best able to judge for itself. One object, then, that I have in view is, to give to every member of society some choice in the selection of his home; and for that purpose I propose a general plan for the management of the general principle, while I would so arrange its details that a Yorkshireman should not, in compliance with the principle, be dragged to Cornwall, or the Cornishman to Cumberland, or *vice versa*.

For this purpose I shall first develope the general machinery, by which I propose to put the whole plan in motion, and I shall then explain by what means the benefits may be most pleasingly and advantageously administered to the subscribers. I have already explained the mode of administering the funds; I shall now enter upon a consideration of that subject which is of even more importance. If any one circumstance more than another has tended to the uncontrolled power of the few, it has been owing to the total want of confidence upon the part of the working classes for the proper direction of their strength, and the proper, just and honest administration of their funds.

If all those political leaders who were with the people in 1839 had remained true to their own pledges, the working classes would have achieved their rights before this time. If the several managers of the people's funds had at all times given a satisfactory account of their appropriation, the people would have *purchased* their liberty long since; and even yet it is not too late, nor can I blame the oft-burned sufferers for that caution, which, as politicians and contributors to funds, they have recently manifested. In the hope, however, to inspire them with confidence, and to attach responsibility where character is the security, I propose the following as the plan for insuring the safe custody and proper appropriation of the poor people's pence. I propose,

That Thomas Duncombe, Esq., Sharman Crawford, Esq., and John Fielden, Esq. shall constitute a Finance Committee.

That a Treasurer shall be appointed, with an allowance of £2 per week to pay a Secretary, whose whole time shall be devoted to the furtherance of the plan, and to pay postage.

That each town where there are subscribers shall have a committee of three, whose duty it shall be to receive the weekly subscriptions on Saturday, and having received them, they shall,

by that night's post, transmit them to the general treasurer in London; and, upon failure of so doing, that the Treasurer report such failure to some person who shall be appointed by the body of subscribers for that purpose.

That the general treasurer, in acknowledging the receipt of the week's subscription, shall transmit a notice, from one of the finance committee, to the committee residing in the town from whence the subscriptions came, to the effect that their monies, together with all others, have been deposited in the Bank of England, to the joint credit of the Trustees and Treasurer, and whose signatures will be required for drawing out the funds.

That the whole amount received on Monday in each week shall be published, and stated to be lodged, as per receipt, in some daily paper, published on Tuesday, setting forth the gross amount received from each town, and thereby enabling the subscribers throughout the country to have the earliest information as to the receipt and disposal of their funds.

That the whole list of subscriptions be also published weekly in the *Northern Star*—that is the amount sent from each town; thereby affording the several subscribers a double opportunity of comparing the acknowledgment of the general treasurer with the account of the local committee.

I propose that no officer, with the exception of the Secretary, shall receive any salary, with the exception of the Solicitor, who shall be paid his taxed bill of costs for any legal services which may be required, such as investigating title of land about to be purchased and such like.

As the duties of the local committee will be very trifling, they should not receive any salary; and good men will be always found ready to discharge the duties, care being taken that they should be chosen from amongst the largest subscribers, and that a guarantee be given conjointly by the whole three that any defalcation in their weekly account shall be made up out of the monies that they themselves have subscribed as individuals.

The accounts to be published under a general head and a district head—a county constituting a district—and all the funds subscribed within that district to be appropriated to the purchase of land within that county, and to be distributed, as I have already described, to subscribers to that particular fund. For instance, to avoid the inconvenience or disinclination that a Cornishman may be placed under if compelled to go to land purchased in Cumberland, and with a view of locating as many as possible in their own counties; all the monies subscribed to the Lancashire fund would be appropriated to the purchase of



land in that county, and would be distributed amongst the subscribers.

However, as our manufacturing system has led to the wanderings of those of one county to another county, and many, if not all, of whom would wish to go home, suppose a Dorsetshire man, working at Manchester, he may subscribe at Manchester to the Dorsetshire or any other fund, and thus have all the advantages that he would derive from having subscribed in his own locality.

I would further propose that two or more counties may have the privilege of borrowing from each other; for instance, suppose Lancashire, Cheshire, Nottinghamshire, and Derbyshire, were not any of them in condition to purchase an estate offered for sale in one of those counties—in such case I would suggest that the Finance Committee, the Treasurer, and one member from each of the local Committees of counties so situated, should constitute a body in such emergency for the purpose of making the most of circumstances, by aiding a purchase in one county by a loan from other counties, giving such security for the reimbursement as shall not only be satisfactory, but conveniently available to those subscribers who have lent it.

Now, I will explain what I mean; suppose Lancashire to have a fund of £20,000; Cheshire of £3,000; Nottingham of £7,000; Derbyshire of £5,000; and Cumberland of £5,000; making in all £40,000; and suppose an estate in Lancashire was worth forty thousand pounds, in such case loans may be made from those other counties for the purchase of the Lancashire estate, and, possession being the great thing, no distribution should take place of the Lancashire estate until Lancashire had repaid the amount borrowed, which would be done out of the growing funds. Upon the other hand, suppose Cheshire subscribers, with their £3,000, could purchase an estate for £10,000, funds may be advanced by other counties, holding the Cheshire estate in trust and undistributed, until the debt was discharged.

This precaution of not distributing the estate would be necessary as a means of guarding against any fraud; for instance, if Lancashire got an advance of £20,000, and immediately proceeded to the distribution of the property, the subscriptions would cease; the most fortunate would be in possession of the land, and the lenders would never get back their money; and, further, holding the estate in trust until the whole purchase money was paid would be necessary for the protection of those parties who may draw money-prizes in the lottery.

I shall now explain the great service that such a system would render to the general purpose. I presume, and indeed,



I feel convinced, that every district would be able to purchase a large amount of land every year; while, by this plan, Manchester, or any other county, may purchase a large estate at the end of three months; all liabilities upon which would be discharged by subscriptions for the remaining nine months at the end of the year; and I presume that no trustees can have better security for the repayment of monies, than the certainty of subscribers continuing to pay up their subscriptions for an estate which had been purchased, and to all benefit of which they would forfeit all claim, in the event of failing to pay up their subscriptions.

The reader will see that my whole plan is arranged with the view of preventing fraud, or of leading to such an immediate discovery of it as would render it as harmless as possible; to an economical mode of managing the affairs of the society, and to a saving of one shilling of incidental expences.

As a matter of course, the most perfect, and legal, and satisfactory arrangements would be made to prevent anything like a failure of the plan, and to insure the speediest results from its operation. Under the controul that I have mentioned, I shall most cheerfully act the part of Receiver of Weekly Subscriptions, and shall deposit them as soon as received, publishing the amount, as I have already proposed, while I shall see to the complete performance of all the required duties by a Secretary, who will be responsible to me, and whose time will be at my disposal. In the event of my being absent from London it will be necessary to appoint a Sub-Treasurer, who would supply my place while absent, and the person most fit should be decided upon by the Committee of Finance.

The plan is now before the people, and the material questions for their consideration are, Firstly, do they believe in its practicability? Secondly, if practicable and carried out, do they believe in its efficiency as a means of redressing the present national complaint, and of preventing its reappearance? Thirdly, have they confidence in the persons whom I have named as trustees of their funds? And, Fourthly, would they consider the risk of the loss of twenty-six shillings sufficiently compensated for; firstly, by the chances of remuneration presented; and, secondly, by the removal of a portion of the surplus-made population of idlers? I shall say just a word under each of those heads.

Firstly: do they believe in its practicability? Perhaps the wholly uninstructed will delay answering this question, until I shall have located a peasant upon four acres of ground, and shall have laid down easy rules for its management, explained its capabilities, and have shown the returns, after the expendi-

ture of one man's labour; while, for the present, I may direct the attention of such persons to the account of Samuel Bridge, which I believe to be well authenticated; and further add from myself, not only that I believe, but that I have not a shadow of doubt, that any moderately industrious labouring man will be able to purchase for ever that amount of land which he can cultivate well by his own labour in less than three years, and without abridging a single one of his comforts for that time.

Further, I am confident that an industrious man, by three hundred days' moderate labour in each year, with a lease for ever, can feed himself, and lay up, after good living, good clothing, and payment of rent, rates, taxes, and casualties, more than one hundred and fifty pounds. In fact, I am ready to hazard the fate of my plan upon the success of the experiment; and, with the view of testing it, it is my intention to locate a good, honest, industrious labouring man upon four acres of ground, which for three years I will give him rent free, and supply him with the required capital, and if that man is not worth four hundred and fifty pounds, over and above all charges and liabilities, at the end of three years, I will allow that I am a fool, and turn corn-law repealer.

Secondly: if practicable and carried out, do they believe in its efficiency as a means of redressing the present national complaint, and of preventing its reappearance. While my observations under the first head are also strictly applicable under this head, I may further add, that surely, even admitting many disadvantages, it furnishes many fascinations to all those who are now idle, or only partially employed. Firstly, the chance of being provided for; or, if not successful in that respect, of supplying the place of those who have been.

Thirdly: have they confidence in the persons I have named as Trustees of their funds? Under this head I have only to observe, that in Mr. Duncombe, Mr. Crawford, and Mr. Fielden, I have the most unlimited confidence; and, I believe, the working classes have the same confidence in me. However, observing that rule of law, which presumes the necessity of treating every man as if he was a rogue, I have limited the power of the officers to commit fraud, if inclined, to that point which would render the fraud comparatively trifling, and lead to its immediate detection. But I can go further, and render the Treasurer a responsible officer, without leaving it in his power to commit one single act of speculation. Thus, the Trustees may open an account with the Bank, and the monies may be sent from the several districts direct to the banker, to the credit of the Trustees; while the Treasurer would be able to publish the balance sheet each week from the banker's



accounts, just the same as if he had deposited the monies himself; and, in truth, this latter plan I very much prefer, as it will relieve me at once from the necessity of dabbling in any way with public funds; while it will also do away with the necessity of reposing confidence in a sub-treasurer during my absence from London.

Moreover, I should think the time of a Secretary would be sufficiently occupied in corresponding with the several district committees, while our lodgements would be large enough to make it worth the while of a banker to keep a clerk, if necessary, whose sole business it would be to attend to the affairs of the society, while he would have no power of touching the cash. But of all things we must take care and make the Bank of England our bank of deposit, for I can well imagine the temptation that it would be to an honest *firm* to fail, with a million of the people's money, just as their trustees were about to vest it in the purchase of estates; and I can easily suppose the feeling of indignation which would naturally exist in the minds of those who were ruined or disappointed by my indiscretion.

Further, the security required from the district Treasurers would make it not worth their while to commit fraud; while the publication of the weekly receipts would put it out of their power to repeat it, as it would be discovered upon the first attempt, and within the first week.

Fourthly. Would they consider the risk of the loss of twenty-six shillings sufficiently compensated for;—firstly, by the chances of remuneration presented; and, secondly, by the removal of a portion of the surplus-made population of idlers? As the observations under this head are most applicable to the poorest class of subscribers, to whom twenty-six shillings would be of great importance; arising, firstly, from the want of employment; secondly, from the probability of being unable to continue their subscriptions, and thereby forfeit what had been paid; I shall make a comment or two, with particular reference to such members, both as to the importance of the amount, and the possibility of loss, from inability to keep up the subscription.

I believe, then, that the very poorest working man spends much more than twenty-six shillings a year, or sixpence a week, and many, more than five times that amount, in tobacco or drink of one kind or other, and if he prefers the enjoyment of those luxuries, as he may term them, to the prospect of being moderately able to enjoy them in after life by one year's abstinence, I should say that he well merited that calamity which, knowingly, stupidly, viciously, and sinfully he had



brought upon himself and his innocent family. But as it is a maxim of even our bloody laws, that it is better that ninety-and-nine criminals should escape punishment than that one innocent person should unjustly suffer, so in our regard for the interest of the virtuous who may be rendered poor from circumstances over which they had no control, we are compelled, in justice towards them, to enact a general law which would equally save the vicious from loss, arising out of their own wickedness.

This healing law may be established as follows :—All shareholders should be entitled to transfer their shares to a purchaser for the exact amount paid up, and no more, to prevent gambling upon the eve of the annual distribution of prizes, whereby an act framed for the special protection of the weak may be turned to the advantage of the wily and the strong. A clause should be inserted, giving the trustees the first option of purchasing up the shares, in order that it may be used for the protection of the society, if it should ever happen that a few middle class men should attempt to consolidate the national fund, by purchasing up a number of shares ; which, however, I would further provide against, by not allowing any man to have more than one share, be it large or be it small, be it sixpence a week or a pound a week, allowing each at the same time a chance for every share paid up, according to the general standard ; that is, if there were a million subscribers, and if the general standard of subscription was sixpence a week, the man who paid sixpence would, at the end of the year, have one chance ; the man who paid a shilling would have two chances ; and the man who paid a pound would have forty chances ; and quite right they should ; while, if there was so large a number of subscribers of different classes, it might be a question whether or not a classification of subscribers would not be prudent, that is, that all from five shillings and upwards should be thrown into one class, and from sixpence to five shillings into another class, preserving the graduated scale of distribution according to the amounts subscribed, as I have before explained. Or it may happen that a more extensive classification may be deemed prudent ; however, that would be all matter for after consideration, in the arrangement of which the people themselves would have most interest, and all the power. Further, I would suggest the propriety of a clause compelling the Trustees to return subscriptions, at any time that they may be demanded, to those who are too poor to continue them ; and, for this reason, it is but a simple act of justice to the unwilling defaulter, while it commits no injustice against any member of the society.

Now, I have been particular, most particular, in anticipating every objection that malice or ingenuity may bring against my plan. I have, and I rejoice at it, hit upon an expedient whereby I can discharge the most onerous duty without other responsibility than that which, I trust, will ever attach to any service of mine in the people's cause; while I have relieved myself from any dabbling with the people's money; and while I further have it in my power to render those services gratuitously, thereby leaving the undiminished treasure of the poor to be administered free from peculation for their own sole use, behoof, and benefit.

I have now entered into a general consideration of those means by which I hope and trust to render myself an extensive benefactor to the human race. If I am allowed to proceed, I shall take care so to fence the interest of my clients by all that legal protection so necessary for their preservation; while, in the watching over their interests, in the administration of their resources, and in the direction of their capabilities, I shall exert my every faculty to make the plan as available as human ingenuity, energy, perseverance, attention, and honesty will admit of. My plan differs from all others in the one great essential, namely, the funds cannot be dissipated by officers, committees, directors, managers, and lawyers; it must be applied whole and entire to those purposes for which it is subscribed.

If, then, the people themselves have confidence in those whom I have selected as their trustees; if they believe in the capabilities of the land, and in the value of their own labour when unrestrictedly applied for their own benefit; if they believe in the necessity of some plan for meeting and arresting the increasing influence of capitalists in the artificial market; if they have a desire to have a fair day's wage for a fair day's work; to live independently upon their own resources; to be free, without that freedom trenching upon the rights of others, while it will limit and ultimately destroy the peculation and injustice of their oppressors; if they can abstain from pernicious luxuries, that they may be enabled to purchase virtuous enjoyment; if they see, as I see, the means of egress from the land of bondage; I would implore them to follow me, and I will lead them from their present sinking and degraded state by purchasing their freedom, or I will originate such an opposition and aversion in the minds of their oppressors as will place them in a situation to achieve that deliverance by force which was refused to justice, and for which they were willing to pay.

Let those, then, who are tired of slavery raise the standard of freedom in their several localities; let the necessary arrange-



ments be made forthwith ; let subscriptions commence ; and let the motto be,—‘Englishmen so loved peace, and abhorred bloodshed, that they have resolved upon buying their liberties, and woe be unto those who refuse the just price of their redemption.’ \*

#### POPULATION—ITS APPLICATION.

Although the working classes, for whose benefit I write, have come to the conclusion that what is called the surplus-population of this country does not consist of a surplus beyond what the country, if properly governed, would support ; yet it will be necessary for them to be armed at all points against the sophistries of free-traders, by which they may be led to a belief that a repeal of the Corn-laws would do for them as much and more than I propose ; while such change could be acquired by a simultaneous demand, in which the only labour imposed upon the working classes would be, to shout, to cheer, to defy, and, if necessary, to threaten revolution.

Now, changes achieved by those easy means always present fascinations in proportion to the labour required for their accomplishment, and in a vicious state of society, with an uninformed people to contend against, I should have but slight hope in the success of a plan which proposes some delay accompanied with purchase money, when compared with the more fascinating mode that I have stated above. However, as I have an enlightened public mind to deal with, and as that mind has discovered that changes brought about upon a sudden, and by violence, are seldom productive of lasting benefit, and never to that extent vouched for by the leaders of excitement, I have a confidence in the steady exertions of the whole people in behalf of their own order. When we consider the vast resources of this country, and think of a large portion of the working classes being in a state of absolute beggary, while the cultivation of those resources would confer happiness upon all, I feel myself justified in digressing now and then from the practice of agriculture to a consideration of those means by which alone society can be restored to its proper position.

The great difference that exists between the leaders of the three political parties who now contend for power is this : the Whigs and the Tories differ but little in their political notions, indeed, no further than in the belief each have in their own power of making ends meet. Neither has got any defined or distinct plan to propose as a permanent remedy for those *grievances*, the existence of which is admitted by all. In their



own councils there is division, hesitation, and disunion; while in the Chartist body there is now a perfect union of political sentiment, and a thorough belief in the one remedy for all their grievances. That remedy, however, being one which presents so great a change, all classes with anything to protect oppose its progress, not from any doubt that can be justly entertained towards it as a means of benefitting the working classes, but from a foolish apprehension that such change would lead to the confiscation of that property amassed under the old system. These prejudices naturally lead me into a discussion upon the merits of my plan, and, after fair and full investigation, I think it will be found that all the people contend for is the means of so increasing the productions of this country, as by increased produce, and an equitable distribution of it, to place themselves in a more independent position; while that independence could not possibly require the sacrifice of any other class.

Every man who casts his eye around and sees the uncultivated state of the land in every county in England, and who calculates the difference between its present state and that to which it might be brought, must at once confess that to such improvement we must ultimately look for escape. Those who have witnessed the pernicious system by which our mines, minerals, and fisheries, a large portion of our domestic resources, have been mismanaged, will at once see in a better system a means of providing for a large portion of our unemployed, system-made, surplus population. And here I must enter rather minutely into the indirect injury caused by machinery to those to whose trade it has not as yet been applied, and even to those for whose work it cannot be substituted. I shall consider it more with reference to the consumption of those articles which exclusively come under the head of home manufacture, and for the home market; and the supply of which is made for the most part by persons working upon their own account, constituting a valuable class of society, and whose poverty as a class is a great national calamity, and a much greater national evil, than the failure of a large capitalist, who, in whose own person, represents a body over which he has exclusive controul.

That there should be some rule by which the supply may be apportioned to the demand, is a fact which I presume even free-traders will admit. I shall now proceed to explain how machinery operates against those several trades, the work of which is not performed by machinery. No machinery has been applied to making shoes, and yet we find the shoemakers much distressed, if not more so than the manufacturing

operatives, and why? because the operatives cannot afford to buy shoes, in consequence of the reduced state of their wages, caused by machinery; and, therefore, being no demand, there is no supply. The very same argument holds good in the case of tailors, for whose work no machinery has been invented. The same with regard to hats; and, indeed, if diminished wages leads to diminished consumption, it will be found that this malady not only affects those trades and classes who are nearest to the condition of the working people; but that it pervades all classes of society, even to the very payment of rents, and more especially the payment of ground rents for cottages left desolate by the removal of the operative to an underground cellar; a change brought about exclusively by the operation of machinery.

I think we may go even farther than merely arguing the relative effect that machinery has upon society at large, and trace it a little beyond those limits by which society is bounded. We then find that the malady enters into the Exchequer, and that the throne itself is not free from its infection, its symptoms being manifested in the obligation imposed upon the monarch for submitting to the payment of the Income Tax. Now, machinery, and machinery alone, has been the cause of this Queen-taxing necessity. Again, a man with a family and out of employment becomes a dangerous competitor in a market to which his labour has not been before brought. For instance, an able bodied operative, ousted by machinery, will look abroad for some other market for his labour; if he has never cleaned a horse, he may learn to clean a horse, and the owner of the horse will tolerate his incapacity in the beginning, if induced by a lower rate of wages; thus, if A is a horse-keeper, getting sixteen shillings a-week, and if B, an operative out of work, offers to do it for ten shillings a-week, the master will make allowances for the difference of skill, B will get the place, and will soon be as handy at his work as A, while the master will save six shillings a week by the change. So with light porters; so with colliers; so with ship carpenters, whose work is now for the most part done by apprentices, who receive little or no wages, and who can be very speedily instructed in much of the trade, and who, by a judicious mixing of a journeyman with three or four apprentices, become in a very short time not only competitors with, but monopolists of, the whole trade, while the masters make all the profit; a circumstance which, in my opinion, has led to the loss of very many vessels, and especially those built in Greenock, where the system of employing Highland trampers and Irish emigrants has been extensively practised. In short, literature,



the arts, the sciences, trade, commerce, manufactures, agriculture, polite society, and the stability of government, all, one and all, depend upon the condition of the working classes, and their condition depends upon the profitable application of their own labour for their own benefit; the proceeds from that labour being the source from whence every other class must draw their means of support. Upon the other hand, the more extensive the inventions and improvements in machinery, under the small farm system, the greater would be the benefit to all classes in society, while against none could it be a competitor. The great aim and object therefore should be to apply labour to those purposes which will, firstly, make the labourer independent, and, secondly, to insure from his independence all those advantages which society is sure to derive from his improved condition. Let us hear no more then of foreign corn as the breakfast, dinner, and supper of the English slave; let every man who chooses to work have the power to place his own meal upon his own table from his own field, produced by his own labour. This will be a change in which all would have a benefit; while all others are but patchings, botchings, and mendings, in the hope of "MAKING THE THING LAST OUR TIME."

Such, then, are the outlines of that plan by which I hope to do for the working classes what their rulers are not inclined to do; and, if inclined, what they could not accomplish. All the machinery by which any scheme calculated to improve the condition of the working classes must be arranged by themselves, and for their own sole benefit; while I am unfashionable enough to believe that the advantages derived by all other classes from their improvement, would increase in the same ratio, caused thereby in the condition of the working classes themselves.

In discussing questions of political economy, I can afford to admit the truth of several principles contended for by the disciples of Malthus; so on questions of agriculture I can afford to admit the truth of the reasoning of many of my opponents; but those principles and truths so much depend upon system, that their supporters are only able to present them as a choice of evils, holding up opposing doctrines as dogmas, untried experiments, and dangerous innovations. This is not wonderful; because we find that any innovation upon ancient theory or long practice, is met in the cradle by the opposition of the striding giant "custom," until by perseverance the new light extinguishes the flame of prejudice; and then, wonder is expressed that we could have lived so long and so contentedly under the old system. My object, then, is to direct the public mind to the



improvement of the most valuable of all our domestic resources, and to promote a love for the science of agriculture, through cultivation of which, as I have before observed, the greatness of England would be found to consist in an aggregate of happy individuals.

The comparative insignificance of the yearly value of the land, as compared with the value of that labour which would be required for its highest cultivation, at once establishes the great value of the land as a raw material; while the value of labour will be discovered in the surplus over rent which one man can produce from the cultivation of the exact amount that he is able to manage. Upon the other hand, land not being a raw material that can be brought into the artificial market for improvement, capital is not so likely to be invested in its manufacture as it is in the manufacture of other articles upon which extensive speculations are entered into. This is a reason why the capital of the country has been abstracted, during times of a pressing demand, from the cultivation of our own domestic resources. I rejoice, however, to find that the tariff of Sir Robert Peel, the wisest, the most statesman-like, the most comprehensive and patriotic measure ever proposed by a British minister, has had the effect of turning the eye of the landed proprietors to a consideration of the value of their own land, as compared with the land of other countries, and that it is leading them to the conviction that they have been too long dabbling in the wholesale market, and must, sooner or later, bring their wares into the retail market, and which can only be done, profitably, by presenting advantages to those who have a sufficient amount of capital, by which I mean labour, to insure a profitable return for such holdings as may conveniently come within their capability.

Nothing has gone further to open the eyes of the working classes to the value of English land than the great importance attached to the produce of the land of other countries. The most ignorant working man sees that he is able to accomplish for himself that which the free-traders propose to do for him by law. He knows that the cry is for wheat; that land, with the required expenditure of labour, produces wheat, and that there is under his nose, whichever way he turns, a sufficient quantity of land, if labour was applied to it, to make him independent of all foreigners. Hence, the thirst for wheat created by the League, has been changed into a thirst for land, from which wheat is produced. He has learned, also, that the great value attached to home-production is; that it opens a market for domestic industry, while it increases the demand for artificial productions.

As I have answered a question which sceptics may put to me, as to 'why political landlords do not bring their land into the retail market, and thereby considerably enhance its value?' I shall also anticipate a question which a free-trader may possibly ask, it is this: while I assert that the application of much labour to the cultivation of the land would considerably increase our home trade in artificial goods, the free-trader, or the half instructed, or wholly ignorant, may ask me, 'why, then, if such was likely to be the result, should manufacturers withhold their assistance from any plan calculated to increase their trade?' The answer, however, is easy and may be given thus. Although the domestic demand for manufactured goods may be five times as great as it is at present, yet the price of labour in the artificial market being regulated by its value in the natural market, would leave a less profit upon the increased demand than they have now, holding exclusive dominion over the slave-market, upon the lesser amount.

Having now developed the whole plan, and having commented upon it under several heads, and having assigned what, to me, appear good and sufficient reasons for the proposed change, I shall now proceed to the spirit of my work by showing man what he ought to be, and how he can be made so.

#### SMALL ALLOTMENTS.

As the practice of taking land and subdividing it into garden allotments is now being extensively acted upon in many parts of the country, and lest my system should be tested by the result, I desire to say a word or two by way of comment upon the difference between the two plans. I believe that there is no way in which the labourer will receive so much wages as from the application of his labour to the soil. Throughout all my writings upon the subject of labour and capital, it will be discernible that my sole object in giving up society, ease, comfort, and every enjoyment that a gentleman could desire, has been with a view to enable the workman to discover his real value in society, and that object can be only achieved by making him wholly independent, by placing him in such a situation as will invite him to industry. I fear, then, that the purchase of land by communities, with a view of expending hired labour upon it, would retard improvement, while it would fail of presenting an inducement for the expenditure of man's industry. In fact, after the fascinations of novelty had passed over, the community of original experimentalists would merge into a corporation of landlords.

I write against circumstances, and not against men; and I feel convinced that man can place no reliance whatever upon



his fellow-man, or a community of men, when circumstances operate upon his or their minds, the influence and effect of which would be stronger than any abstract notions of justice. For instance, if a community of labouring men purchase a quantity of land, and hire labour for its cultivation, however just their intentions and pure their motives, they will nevertheless feel themselves justified in raising the price of the land, according to the improved value conferred upon it by the labour of the hired workman. This power of stealthily trenching upon the rights of others is one of the greatest disadvantages against which the labourer has to contend; and those hired by a community, at the end of twenty years would be in no better condition than they were at starting; while the community of proprietors would have increased the value of their property twenty fold; that is, they would have robbed those labourers, by whose industry the value was increased, of nineteen shillings in the pound.

In a previous chapter I have stated, that, in my opinion, a labourer can purchase for ever, any amount of land that he can cultivate to advantage in three years; but a labourer working for a community would not be able to purchase it at the end of twenty years; and it is, therefore, that I have thought it right to caution people against drawing any unfavourable conclusions upon the landed question from the community system, unless, indeed, those communities will grant leases for ever of such allotments as shall come within the scope of one man's capability, instead of hiring labour to give an improved value to their own land.

As I feel the necessity of inspiring the working classes with a thorough knowledge of their own power; and as I feel no apprehension of danger from the possession of all their rights, I shall devote a chapter to the consideration of their value, as compared with the value of all other classes of society.

#### VALUE OF LABOUR.

Of such great importance was the labourer in olden times, before his rights were trenched upon, and his place supplied by artificial power, that we find the statutes of old teeming with enactments for his protection. So minutely interwoven was the interest of the landlord and the workman, the master and the hand-loom weaver, the employer and employee of every description, that the complaint of the employed was sure to arrest the attention of the employer, and to receive that correction which their mutual interest demanded. In those days there was no poor laws, but as art became substituted for nature, *that is, when Henry the Eighth deprived man of his natural*



title to the soil, man lost his position in society, his interest was separated from that of the capitalist, and the consequence was the introduction of a state provision, as a substitute for that which, if justice was done to him, the labourer would have insured for himself.

As this artificial system increased, feuds, jealousies, and dissensions also increased; until at length we find the whole of society cut up and subdivided into sectional interests, warring against each other, with completely separate interests, and foolishly relying upon an amalgamation of all, as a means of representation, and as the source of justice to all. The great disparity that this ascendancy of art has created between the several classes is now the cause of that increasing demand for popular representation. It has been truly said by one of the ablest writers, that in politics are included morality, religion, and instruction; how then is it possible to write a work, the object of which is to make the people moral, religious, and educated, without treating of politics.

However sorry I may be, then, or however I may regret that necessity which compels me to introduce politics into this little work, nevertheless I feel it indispensable to do so, as politics are the cause of all our present dissensions and disagreements, and as the severance of the interest of master and man has led to this angry political feeling; the whole contest now is for political power; while, formerly, the practical liberty enjoyed by the labourer, either withheld all consideration of politics, or satisfied him with the amount of power which he possessed, arising chiefly out of the identity of interest which then existed between master and man. In those days, when there was no such thing as pauperism, there was no necessity that the right of appeal, in the shape of a petition, should be vested in those who had no votes: any injustice done to them was very speedily felt by their masters who had votes, and immediate correction followed the appearance of abuse.

When the right of petitioning was conceded, it was an implied admission that new differences were likely to spring up between electors and non-electors, and in the exact proportion in which we find the social interests of master and man separated, in the exact same ratio do we find the petitions of the non-electors against the acts proposed to be done by the representatives of the masters, neglected and despised; until at length so widely separated have those interests become by the improvement in artificial power, that the petitions of the people are now laughed at with the most contemptuous scorn. And however theorists, metaphysicians, historians, and speculating

logicians may attempt to eulogise the beauties and perfections of the British Constitution, I defy them to disprove, however fine drawn their theories upon British liberty, yet has the English labourer lost every vestige of that practical freedom which he enjoyed under the implied contract that he had a right to live; that he was the first claimant upon the land; and that however his right was changed from actual possession to trusteeship; from trusteeship to parish relief; and from parish relief to commissioners' caprice; that nevertheless that original right was vested in him, and its re-assumption in its original form is what he now contends for.

The character in which the capitalist delights to represent a working man is that of a producer; while his non-consumption, or meagre consumption, of late years, has convinced both the capitalist and the landowner that he is still more valuable as a consumer. They have also learned that machinery, which has become a substitute for his labour, fails in that essential point, it is not a consumer; and hence destructive as a producer, so long as it commands the labour-market, and can be only made a medium of general improvement and advantage when brought in aid of, instead of into competition with, manual labour. I shall now test the value of free-labour in a general sense with the value of hired labour, commencing with its application to land.

We seldom find a farmer retiring from his occupation, because it furnishes him with amusement and gratification, while it insures him enough to eat, good health, and wherewithal to make himself comfortable in life. I shall suppose the farmer to hold a hundred acres of land, and I think I may assert that in ten years time he will not have saved sufficient amount of money whereon to retire in idleness, or wherewith to purchase one quarter of the hundred acres. This inability proceeds from the fact, either that his capital is insufficient for the employment of that amount of labour required to bring it to perfection, or from his ignorance of its capability; both obstructions militating against the general interests of society. Upon the other hand, I shall suppose the hundred acres to be subdivided into farms of four acres each, or twenty-five farms, and will allow that each labourer, after consumption, realises and puts up no more than fifty pounds a-year; that is, the twenty-five labourers, after having comfortably maintained and educated their families, will save £1,250 annually. They would save £100 a man and more; but I am now writing for the sceptic, and prefer placing myself out of his reach.

In ten years, then, the twenty-five labourers would have



saved twelve thousand five hundred pounds, which would purchase six hundred and twenty-five acres of land, worth a pound an acre at twenty years' purchase; that is, while the one man, cultivating the same hundred acres with hard labour, could not, after ten years, purchase twenty acres of it, twenty-five men after living upon it and supporting their families out of it, would have saved enough, I contend for it, to purchase one thousand two hundred and fifty acres of the same description of land, while, for argument sake, I only allow them to be able to purchase six hundred and twenty-five acres at the end of that time. Again, during the ten years the one occupant will have employed say four labourers, whose families, at seven to a family, would amount in the aggregate to twenty-eight half-fed, half-naked, wholly uneducated slaves; while within the same period the same one hundred acres would have supported and educated twenty-five families, making in the aggregate one hundred and seventy-five; and, beyond that, while the four slave families, and the single occupant, would have conferred little or no benefit upon society, the twenty-five free labourers and their families would have contributed very largely towards the support of tradesmen of every description.

Hence, I show the manner in which a bad system of cultivation limits production, stagnates trade, and pauperizes those engaged in the unproductive pursuit; while, upon the other hand, I show how a proper system would increase production, encourage trade, and furnish that sweetest of all sauces to labour, the prospect of amassing in manhood a sufficient amount for old age to retire upon in idleness, independent of parish relief, and not subjected to the tender mercies of a cruel overseer, or to those galling reflections which must haunt him through life, that the day would assuredly come when he would be torn from his aged partner, from his own children, from friends, from society in the world, and consigned as lumber to linger out the winter of life, an object of jealousy to those who had fattened upon his young blood, and to whom he had become a loathsome burthen.

I now turn to a consideration of the act of employment of capital in the artificial market, and I shall take the very lowest estimate of the capabilities which the present system affords capitalists for amassing fortunes by artificial power. I suppose a manufacturer to commence business with ten thousand pounds, over and above his original capital. I may be told that it is not usual for a manufacturer commencing business with ten thousand pounds to retire in ten years with a hundred and ten thousand pounds, I admit it; but it does not arise from his



inability to do so, but is in consequence of the great fascinations which success presents; and which become an inducement to extend his trade; however, the fact is undeniable that the smaller returns from such business are the exceptions, and that the larger profits are the rule; and I must not be answered by losses sustained in bad times, when failures have been brought about by injurious speculations and over production; all militating against the labour class, and none furnishing any fair set-off against the injustice done to the labourer, while the lost fortunes were being accumulated.

There is a very fanciful notion abroad that you have no right to interfere with speculations, or to interpose any obstacles in the way of industry. This may be all very true, if the system which presents those opportunities was equally protective of the rights of all; but it becomes an injustice when it subjects the fortunes of the many to the caprice of one. Feeling myself justified, then, in setting down the profits from the employment of a hundred men's labour at a hundred thousand pounds in ten years, we will see how a more equable distribution might be made of the accumulated sum: if the master retired with his ten thousand pounds original capital, and if to that was added twenty thousand pounds of the accumulated profits, he would be well paid by receiving two thousand a year for his overseership for ten years, while the remaining eighty thousand pounds, if divided amongst the hundred hands, would leave the sum of eight hundred pounds as the retiring salary of each individual.

Suppose, for argument sake, that the man only added forty thousand pounds in ten years to his original capital, thereby having accumulated fifty thousand pounds within ten years, and the superintendence of the work being equally onerous; suppose he draws one half of the whole accumulated profit as his share, it would still leave twenty thousand pounds to be divided amongst the one hundred hands, or would leave a retiring salary of two hundred pounds for each labouring man; an amount which would purchase him four acres of good ground for ever, and leave him a capital of one hundred and twenty pounds, to build a house and supply himself with the necessary stock. If then a lad begins to work at the age of sixteen, after he shall have received a proper education, he will have earned wherewithal to support himself during life when he attains his twenty-sixth year; thereby relieving the country from the expence of a standing army to suppress his treasonable designs against the system which consigns him to beggary and starvation; and releasing society, who has derived no

benefit from his labour, from the necessity of supporting him in premature old age, after the capitalist shall have used him up.

I have now shewn the effect of with-holding a sufficiency of labour in the natural market, and also the effect of the application of capital to the employment of labour in the artificial market; and I shall now treat of it under a more general head; its effect upon the shop-keeping class. It will at once be seen that my object is to shew the disadvantages which the present system impose upon the great majority of society, and the consequent injuries inflicted upon the great majority of all classes. Suppose a shopkeeper then, a grocer, or tobacconist, or corn-chandler, or any description of shopkeeper you please. He stands in the position of an active agent between the producer and the consumer; he makes no profit whatever of the producer, but, on the contrary, the producer through him, as an agent, makes a profit upon each consumer. Suppose this man to start in business with one thousand pounds, a very fair capital, and more than in the general run of business is invested by those who deal in consumable, and for the most part perishable articles. That thousand pounds at five per cent. would produce him no more than fifty pounds a year, a sum less than many mechanics can earn; but so great is his confidence in the ability of labour to support him, that he enters into an engagement to pay the whole interest of his money and more in rent and taxes, thereby at once embarking his all in speculation upon consumption.

Now, a man having vested a thousand pounds in shop-keeping, will live and support his family very much better than if he had invested his money, received fifty pounds a year for it, paid ten pounds rent and taxes, and lived upon the remaining forty pounds, while, with fair business, at the end of twenty years he would consider himself unfortunate, if, after living well, and having educated his family well, he was not able to retire with ten thousand pounds, his business being worth a thousand pounds, or the original sum invested when he embarked in it. This is perhaps the most honourable description of accumulation, and let us see the position in which it places the speculator. The ten thousand pounds saved by his agency would purchase five hundred acres of land of good quality for ever, and those five hundred acres, subdivided into one hundred and twenty-five farms of four acres each, would support eight hundred and seventy-five individuals, besides the demand for increased trade occasioned by their independence; and would

further produce an annual capital from their savings of twelve thousand five hundred a year.

I have thought it essential to enter minutely into this part of my subject, because it comprehends what I consider to be the most important branch of political economy, namely, the means whereby the labour of the country may be so applied as to relieve the country from all those impositions which its misapplication imposes; and at the same time sweetening labour, nay slavery itself, with the fond thought that the harder the task, the nearer is the hour of retirement. I believe that every professional man, every commercial man, every manufacturer, every trader, and every shopkeeper, receives a spur to his industry from the hope of his being one day able to retire from the bustle of life to that retreat where he may enjoy that ease which he has honourably purchased, and where he may spend the winter of life without the toil of business, and relieved from the anguish occasioned by dependency.

If, then, this hope gives a spur to what may be called sedentary life, why, I would ask, should not the toil of him who has contributed towards the ease of others be sweetened by the same anticipations? Why should not the labouring man, by whose industry all thrive, be allowed to thrive himself? Why, when he sees those retiring from amongst him who have grown rich upon his toil, should he be subjected to the galling necessity of slaving on till a new batch has fastened upon his resources, looking not to an honourable retirement, but to a cold Bastille as his last retreat, and to death as his last resource? Can he love your system? Can he honour and obey the king, and all that are placed in authority under him? Can he submit himself lowly and reverently to his spiritual teachers, pastors, and masters, who speak to him of the blessings of eternity, while they consign him to beggary, starvation and want here below? Do you want him to be loyal? Can you expect that he will be religious? Can you hope that he will be moral? It is because it is contrary to nature that he should be so, that I seek to place him in that position wherein he is sure to be so.



## AMERICA.

The present number being intended as a preface to the practical mode of managing four acres of ground by the labour of one man, and agriculture being a science of which the English working classes are, shame to their rulers, wholly ignorant, I have thought it right to place the capabilities of the land, and the value of their own labour when applied to its cultivation, in such light as, without a practical knowledge of agriculture, may induce them to reflect upon the subject. Again and again I must state as a reason for diving into the question in all its bearings, that no work has ever yet been written upon the same plan, and had I at once jumped to a consideration of how four acres of land were to be managed, without developing the means by which it was to be acquired, or without giving the reader a taste for the science, I should have been justly chargeable with extreme folly.

The reader will see that I have been compelled to refute a great many free trade arguments that have appeared in newspapers, and that I have also felt the necessity of contrasting the value of labour in the natural labour market, and the artificial labour market. And as some of our writers upon political economy have attempted to contrast the condition of the American operative with that of the English operative, supposing that the same prospects were open to both, I shall just make a comment upon the subject.

The free traders have so jumbled and conglomerated what they call principles of political economy, that I scarcely know how to saddle each inventor with his own folly; and shall therefore treat this part of the question as a piece of absurdity that seems to meet with the acquiescence of the old school. It is this: in their endeavour to prove the great value of an increased trade, and the advantages that it confers upon the operatives, they say, look to America! and there we find that, although there is an abundant demand for agricultural labour, yet do the working classes prefer working in the factory to working in the field; now, can any thing be more absurd, more ignorant, more ungenerous, or more ridiculous? Do not these writers upon political economy know full well, that, if they had argued the question out fairly, they must have come to the very same conclusion that I have in a previous part of this work.

It is quite true that an American operative will prefer factory to field labour, and what does it prove? Why, precisely what

I have asserted ; that the preference for the artificial labour is based upon the higher rate of wages with which the manufacturer is compelled to tempt the operative to leave the natural market. This is just the case. There is an abundant demand for agricultural labour in America, and yet, where the opportunity presents itself, the American labourer prefers working in the factory to working in the field, but why ? Firstly, because he is tempted by an offer of higher wages in the artificial market than that which has been established in the natural market ; and secondly, that he may, by the higher rate of wages, be able to purchase a plot of ground for himself and thus provide a free market for his own labour ; thus clearly showing his ultimate object to be the cultivation of the soil. So it was precisely in this country, the agricultural labourers were seduced from their natural labour by the tempting prices offered in the artificial market, and many could in those days have laid up wherewithal to insure a happy retreat, had the same opportunities been presented to them that are presented to the American ; but as they are not, the attempted contrast is incomplete.

The political economists have failed to tell the people that the law of primogeniture, which precludes the possibility of the Englishman purchasing a small plot of ground, does not exist in America, and that the consequence of its existence in England is now daily seen in the overstock of professions, trades, and dealers of every description. The speculations to which the most fortunate adventurers in the artificial market betook themselves, rested upon a belief that the prosperity was to increase and every branch of business was to be extended to suit the advance in wages of the working classes ; and now, the poverty of those several speculators is not a consequence of diminished production, but is a consequence of the diminished rate of wages, occasioned by improvements in machinery. Our shop-keeping market, our trade market, our commercial market, were all extended to meet the improved condition of the people, and their total failure is a consequence of the poverty of the people, while, in the midst of that poverty, the subtle owners of that artificial power have got hold of all the money that ought to belong to those speculators, the shop-keepers, and to the people.

The grievance is not poverty arising out of a want of money, there being more money, and money's worth, in the country than ever there was before ; the grievance is, that machinery came upon us with a hop, step, and jump ; that, in its infancy, it presented such fascinations to the Chancellor of the Exchequer, that it was allowed to remain uncontrolled, until at length



its owners got so far a-head, and became so wealthy, that they are now able to dictate terms to a government, whose existence depends upon the confidence of the capitalist.

If, upon the other hand, one-tenth part of the money that was expended in speculations to meet the improved condition of the working classes, had been expended for the improvement of agriculture, no artificial circumstances whatever could have checked the growing prosperity, and had the retail land market been open for the operative, as it is in America, thousands upon thousands would have purchased in it to the full amount of their earnings; but, horrible to say, to write, or to think of, the necessity of upholding a corrupt system, renders dissipation and immorality necessary, and I unhesitatingly assert, that, if I had proposed my present plan at the time when the working men were prosperous, and had I succeeded in converting a portion of their wages into a Savings Bank, and thereby abstracted a portion from gin duty, tobacco duty, malt duty, hop duty, and all the other accursed duties, the Chancellor of the Exchequer, under the advice of the Attorney-General, would have charged me with the crime of endeavouring to make Her Majesty alter her measures, by depriving her of those means by which she is compelled to uphold them; and I have as little doubt that some honest judge and middle class jury, would have seen danger to their order, in the improved condition of the working classes, and would have found me guilty of that offence.

If I am right in my conclusions, then, it is manifest that the law of primogeniture, which does not exist in America, presents an insurmountable barrier in the way of the English operative, and leads us once more into the field of politics; and also to a consideration of that power apart from government control, which is vested in the people themselves, and which no government can destroy. It is a truism, that a combination of the popular mind directed to any common object, must establish itself as the foundation of the government of the country. It is folly, childish and absurd, to talk of the difficulty of such concentration if the majority are oppressed, and if their union will relieve them from oppression, and if they will not unite, then are they willing slaves, and the government of the union of the weaker party is justified in looking upon the people as satisfied with their measures.

This rule especially holds good, when the service required from the people as a test of union is not dangerous, while, upon the other hand, if there is danger in the mode by which the union of the people is to be exhibited, there is danger in pro-



posing it, and its failure is followed by increased weakness ; for instance, a month's cessation from labour is a plan that a majority of the people would have gladly adopted as a means of evincing their union, while their incapacity to carry it out but shewed their weakness. In the plan which I propose there is no danger, because there can be no failure ; while its adoption would break down the law of primogeniture altogether, because, although it precludes the possibility of selling estates in patches, yet it does not prevent the trustees of the place from purchasing estates and subdividing them into the very smallest allotments.

Thus, then, I show the means whereby that strong bulwark of the English aristocracy can be knocked down by a union of the people. Again, the national debt is a great burden, and a great stumbling block in the way of all improvements, yet, if the people were to conspire not to drink any intoxicating drinks for one year, the government would be compelled either to abandon the national debt, or to throw the whole burthen of it upon the owners of property, and thus the law makers being made the tax payers, they would speedily rid themselves of a grievance of which they never felt the weight when they saddled it on the backs of the working classes.

Again, the church is a great grievance ; and yet if all the industrious classes of society came to a resolution not to enter any place of worship where a tithe minister preached, and if they united into one large dissent congregation, taking up their stand in view of the church, preaching there, and exhibiting their numbers to those who had attended the tithe church, offering no offence, behaving decorously, and thus giving a practical illustration of the injustice of making the many without pay for the few within, this union of dissent would very speedily overcome the injustice of a state church.

Union, in fact, has never failed of accomplishing its end, if legitimately used, and it is because I feel perfectly convinced that a union established for the purpose of locating the people upon the land cannot be obstructed by any factious means, and because it cannot be weakened by adventitious circumstances, that I hail it with great joy and pleasure as one that must go on and prosper. I believe that its very establishment, and the purposes for which it will be formed, will lead to an improvement in the morals and the character of the people, from the very inducement that it holds out of a better remuneration than a head-ache, and vomit, incapacity, and loss of character from their little savings ; in fact, I think that the working man who can scrape sixpence or a shilling together on a Saturday

night and who prefers spending it in drunkenness to vesting it in the land fund, deserves all the misery that his own recklessness can entail upon him, and I, for one, shall never pity the forlorn condition of such a willing slave.

I think I may triumphantly refer to those letters which I addressed to the Irish landlords from York Castle, in 1841, wherein I predicted their present condition, and wherein I foretold the outbreak of August, 1842, the means by which it would be brought about, the parties who would bring it about, and those who would suffer for resisting the attempt. Those letters have been widely circulated, and have aroused the working classes to thought. Emboldened then by the fulfilment of my prophecies of 1841, I shall now venture upon a prediction in 1843.

I prophecy, then, that before this day twelve months the question of national faith will be passionately discussed in the House of Commons; that the tariff landlords, and the free-traders, having lost the confidence of the people, and being more powerful than the owners of funded property and the church party, will put their heads together to devise measures whereby they may rid themselves of both incumbrances and divide the spoil between them; that the minister will be compelled to abandon all artificial speculations, and to turn his attention to our natural resources; that many of our colonies will be given up; that a state provision, payable out of the consolidated fund, will be applied by a graduated scale to the support of all ministers of all denominations; that bishops will be thought a nuisance; that Scotland will demand the expenditure of her own revenues in Scotland, or a repeal of the union if such proposition is resisted; that the surplus money, now valueless in the market, will be applied to agricultural purposes; that the great "WEN" will be reduced; that many of those stately mansions by which London is surrounded will be uninhabited, and that the present occupants of loathsome cellars will be removed to the country air; that agriculture will be an honourable science; that a minister of agriculture will be added to the cabinet, and, to prevent revolution, the aristocracy, thus clipped of the means of keeping up corruption, will begin to enquire how the franchise may be safely extended to those whose altered position gives them an interest in security of life, liberty, and property, and in the preservation of peace.

Always bearing in mind that war is to trade what the hot-bed is to the plant, which forces it but strengthens it not in its growth; while peace is as the pure air from heaven, which forces it not but strengthens it in its growth until it arrives at a wholesome maturity. It is quite true, that much of the above

prophecy will depend for fulfilment upon the conduct of the people themselves. However, I have made it, and time alone will prove whether I am right or wrong. All classes of society are panting for change, and the question is what that change shall be. Nearly thirty years of European peace has turned the public mind to a consideration as to how its blessings may be preserved, and they will find no means so effectual as those which will give the working classes an interest in the preservation of those institutions under which they live.

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### TO THE PEOPLE.

In order that I may be perfectly understood, and in order that the working classes may be prepared to answer all the objections started by the wily against my plan, I have to beg it as a compliment at their hands that they will, in their several localities, appoint good readers to read this number, if they pass over all others. Let them appoint particular evenings in each week for reading and discussing it chapter by chapter, and if there is any emendation which they can point out calculated to make the plan more perfect, all such proposed alterations may be submitted with great advantage to the governing body. There are many circumstances connected with the life of a working man of which I may be ignorant, and a knowledge of which is indispensable for the completion of the machinery.

So anxious am I that this subject should be extensively discussed, that I would much rather that one number only was taken and read to ten thousand persons until they thoroughly understood it, than that five thousand of those ten thousand bought a number each, while the remaining five thousand remained in perfect ignorance of the subject. My particular objects cannot be too often repeated. Firstly, I hope to es-



tablish the real value of labour in the natural labour-market, below which the labourer will not work in the artificial market. Secondly, I wish to impress upon the minds of all, the double good that the carrying out of the plan would effect; that of not only conferring upon a large number the means of living happy during the whole of life, but of also removing them as competitors from the artificial labour market. For instance,

Suppose ten thousand persons were the exact number required to perform all the work in a certain district, and that their wages were regulated by that steady demand for their labour; and suppose that an additional two thousand came into that market to compete with them, it would be much more to the advantage of the ten thousand to club their entire wages, and to divide it in equal portions amongst all, including the two thousand idlers, than to admit them as competitors in the labour-market, as they would very speedily find that the surplus of labour would lead to such a reduction of wages, as would compel the twelve thousand to work for a less amount than the ten thousand, which constituted the proper supply for the demand, were in the habit of receiving.

I would beg of all money-clubs, and all societies having monies at their disposal, to consider my plan dispassionately, and of all things to bear well in mind the fact that they are not called upon to abandon the control of their funds to the management of others; while I would impress upon the working classes the absolute necessity of appointing the ablest of their body as lecturers, not to live upon the excitement that the subject may cause, but who will be able, without speechifying, to explain a homely plan in homely language, so that all may understand it. From a proper observance of such advice I anticipate much good, because the subject being a novel one, and, in my mind, a captivating one, will gain daily strength from discussion.

Many persons have already expressed their determination to take shares, in the hope of forwarding the interests of the working classes, while that excellent gentleman, Mr. David Weatherhead, of Keighley, has embarked several hundred pounds in the speculation; and our friend Mr. Linton, of Selby, and others anxious to furnish practical illustrations of the system, have successfully engaged in the cultivation of small allotments. I have started at four acres, because I believe that to be about the amount which one man can cultivate to advantage. However, circumstances would materially guide us as to amount; while I would be most cheerfully governed

by the opinion of those upon whom those peculiar circumstances operate.

And, now, in conclusion, as I have stated that the main interest in a country will always be the mainspring of legislation, I hope, ere long, to see our laws based upon common sense instead of upon fiction, and that those laws will be framed by all for the benefit of all. While in an undertaking like the present, although I may take credit for the performance of one man's work, yet I cannot withhold that praise which is due to the great architect, without whose projection all my labour would be lost. My superstructure is to be built upon common sense, and the adored Father Mathew is the architect who has marked out the site, and furnished me with a sound foundation. If the plan should succeed, of which I have no doubt, I shall claim the credit due to a good workman; while to that greatest benefactor that the world ever produced shall be accorded the merit of having manufactured the tools with which the work is to be done, and my only hope is that his gigantic exertions may be crowned with success here below, and rewarded with eternal glory in the world to come; and to which, in my opinion, he is endeavouring to establish a title. GOD BLESS HIM.

## INTRODUCTION TO THE PRACTICAL MANAGEMENT OF SMALL FARMS.

The great success with which my endeavour to familiarise the mind of the working classes with the landed question has been crowned, (one publisher alone having sold over 3,000 numbers of this work) leads me to a very sanguine hope as to the result, and to a belief that ere long the subject will be considered of importance far outstripping all others. It was no easy task to have digested anything like a poor man's plan out of the rude and complicated absurdities, technicalities, and legal restrictions with which, through all time, landed proprietors, law makers, political economists, and interested writers, had entangled the question. Indeed, it would appear as if some magic spell hung over the land of these countries, whereby it was made barren and sterile, whereas the incapacity lay not in the land but in the system under which it has hitherto been managed. Before I proceed to the simple work of laying out that quantity of land, which, according to the present population of the country, I deem the requisite amount to allot to each individual, I shall state the leading inducement which should operate upon the minds of all, and which should ensure the co-operation of all, in furtherance of the object.

Under our present artificial system, the one great evil of which even the most fortunate complain, is uncertainty. Risk is a term very generally used by manufacturers, merchants, and traders. Risk means uncertainty, and that uncertainty is occasioned wholly and exclusively by the uncertainty that prevails in the labour market. Whatever a working man's condition in society may be, and however satisfied he may appear with his condition, the uncertainty of even a bad lot, is a cause of fretfulness, anxiety, and unsettledness, to which no legislature can reconcile him, from which no philosopher can relieve him. It is right that the reader should understand precisely what I mean by uncertainty. By uncertainty in trade, I mean the probability of speculations being entered upon, attended with great risk, in consequence of the uncertainty that prevails in the labour market, and by which market all speculations must be regulated. Uncertainty in the labour market, more than even the ruinous reductions in wages, occasioned by the unrestricted use of machinery, is the greatest evil of which the working classes complain, while, under the present system, it is wholly out of the power of any government to legislate between artificial power and manual labour, while the existence



of an uncontrolled, *non-consuming*, producing power is incompatible with certainty in the labour market.

The channels through which governments and commissioners profess to arrive at the state of the labouring market, are erroneous and deceptive. The Commissioners, in making their reports, set down not only the highest amount of wages returned by the masters as paid to their hands, but they further neglect to state the number of days in any given period which the men are compelled to remain idle. Thus, there is very little sympathy for spinners, miners, power loom weavers, mechanics, block printers, engravers, and others of the labouring classes, who, by returns, appear to have received from thirty to fifty shillings a week, whereas it not unfrequently happens, that parties employed in those several works may have been one-half their time idle, either owing to bad trade, which means over production, or to a strike against a reduction of wages, or to some other cause. Over those casualties the working men have no controul whatever, they are always on the defensive, and their object always is to arrive at something like certainty of employment. There is very little doubt that a working man would much prefer the certainty of a salary of £40 a year to the chance of receiving £60, and, therefore, certainty of employment is the great object that I have in view.

The owners of that surplus capital now lying idle, complain of the very limited sphere allotted for its circulation, as well as of the uncertainty and risk consequent upon its investment. To the land alone, then, and to the land at home too, and to that only, can capitalists look as a certain field for the investment of their monies, while, to the same source, and to it only, can the labouring classes look for certainty of employment. The man who occupies four acres of ground, and who would otherwise be a pauper living upon the industry of others, would have a certain market wherein to expend his labour, and wherefrom to draw with certainty the proceeds of his labour, and thus would the country be at once relieved of the whole system of poor laws, so galling, so grinding, so revolting and expensive. A class of farm labourers whose profits were thus reduced to something like certainty, would create a certain market for all classes of traders, whereas I much doubt that they would require any of those expensive establishments now considered necessary for reconciling the pauper to his lot; while the proceeds of industry thus equitably circulated and distributed, would constitute an abundant resource, from which a minister may draw the necessary taxes requisite for main-

taining a just system of cheap government ; a system made cheap by the substitution of certainty for uncertainty.

Some portions of the press have taken exceptions to my work because I have found it necessary here and there to introduce political subjects, but I would ask how it is possible to write upon a system wholly of a political nature without adverting to politics ? Is not the question of a repeal of the Corn Laws made one of great political prominence, and is not the question of home production inseparable from that of foreign importation ? Is not the means of acquiring a sufficiency of wheat, the one question of all absorbing political importance ? Is it not from the land that wheat is produced ? And how then is it possible to separate the question of a repeal of the Corn Laws from that of the home production of wheat ? However, I have only touched upon politics, where, to have avoided them, would have rendered illustration incomplete, and, if fault can be charged, it must be upon those who have so cunningly mixed up political with social questions.

No plan can be made perfect in the outset, and further consideration has led me to the suggestion of a great improvement upon a portion of my plan as laid down in Number 3. In Number 3 I have described a plan, by which risk to the several shareholders may be limited as far as possible, while I found it impossible to devise a scheme altogether free from risk. The plan which I suggested in Number 3, for the distribution of land and the subsequent appropriation of the purchase money amongst a portion of the shareholders, is attended with considerable speculation ; and the following I think will be considered as a great improvement upon that portion of my plan. Possession of the land is the one great object that the people have in view, and how to make that possession as extensive as possible should be the great object of the society. The improvement, then, that I propose is as follows :—Suppose the society were possessed of one hundred thousand pounds to lay out in the purchase of land, instead of selling it after it had been allotted for ever to the various holders, and of distributing the purchase money amongst a portion of the shareholders, I would recommend the sale of the land after allotment in the same manner as proposed in Number 3, while, instead of appropriating the funds to re-pay any portion of the shareholders, I would recommend that the purchase money be applied to the purchase of more land, upon which other shareholders may be located, and thus, with any given sum, say one hundred thousand pounds, the society may become possessed of every estate offered for sale in the market.

Possession is the one thing needed, and one thousand



acres of land, subdivided amongst two hundred and fifty able-bodied men, would be far better security to any purchaser than the same one thousand acres would be in the possession of the most improving individual. Suppose an estate worth a hundred thousand pounds to be in the market, and purchased by the society; as soon as it is purchased it should be allotted, in farms of four acres each, to those subscribers selected by ballot from the general body; each holder should then receive a lease for ever of his land, at a rent regulated by the price at which it was purchased. This gives him possession for ever, independent of any purchaser who may become the landlord. The estate is then sold with the additional security that increased labour would give to it, and the purchase money is at once laid out in the purchase of more land, to which another batch of shareholders are also appointed by ballot, and so on.

Now, I am aware that your first-principle men will deal with this subject as an unjustifiable interference with national property, and the only answer that I can give unto the ninety and one hundredth generation men yet to come, is, that when my plan presses hardly upon generations yet unborn, let those generations in their day do as we hope to do in our day, leave the world better than we found it. For the next three hundred years and more the population of Britain without being thinned by plague, pestilence, war, or famine, could live under the provisions of my plan, while each succeeding year would ensure for it improved machinery, through increasing population to make it perfect and still more perfect, while it is the only means by which the blighting influence of the law of primogeniture, reliance upon foreign states, and dependence upon the artificial labour market, can be successfully combated.

The most dogged and stupid must admit that something must be done. All must see that England has become too small for the speculations of the owners of a non-consuming producing power; that they have swallowed up a large portion of the land of England by converting artificial labour into purchase money of real property, that that land, however valuable, is of minor consideration when compared with the rapidity with which fortunes may be accumulated with fictitious money and a non-consuming producing power, and that having thus possessed themselves of a large portion of the lands of Britain, they will henceforth play for those of Poland, Prussia, and the continent of America, if not stopped by doing beneficially at home, that which they propose to do for their own advantage abroad. Once more then repeating the principal objects that I have in view, I shall proceed to the practical management of a four acre farm. The objects that I have in view then, are as follows.—



Firstly. To create certainty in the labour market.

Secondly. To establish an unerring standard of the value of labour in the free labour market, whereby its value in the artificial market may be ascertained.

Thirdly. That the capitalists who make fortunes by other men's labour shall henceforth hire that labour in the free labour market, wherein every man will have arrived at a knowledge of its full value, instead of, as at present, hiring that labour from the reserve of a system-made surplus population, and which is regulated wholly and entirely by the amount of system-made paupers in the market.

Fourthly. To insure some wholesome regulation as to demand and supply, whereby the capitalists will be prevented from drugging the markets of the world with the produce of cheap labour.

Fifthly. To enable the legislature to make laws for the promotion of morality instead of living upon depravity.

Sixthly. To enable us to dispense with that heavy load of taxation now said to be requisite for keeping the dissatisfied in subjection.

Seventhly. To create a feeling of self-respect in the minds of the working classes, by making each a component part of the human family, and thereby attaching all to those institutions which render them protection in return for their support of them. And

Eighthly. To destroy my own and all other demagogues' trade, by enabling the people to do for themselves that which they now rely upon political traffickers to do for them.

## RULES FOR THE PRACTICAL MANAGEMENT OF A FOUR ACRE FARM.

In the previous numbers I have entered upon general topics connected with the management of land, and in the consideration of which I have stated the result of several experiments made by myself and others. As a matter of course the result of those experiments also led me into the field of assertion, but by no means to an extravagant amount. In those rules however which I shall lay down for the management of Small Farms, the reader will expect certain data to be taken as the foundation upon which the system shall be built; as the object is the one nearest of all others to my heart, I shall so confine myself within the limits of moderation as to defy refutation. It is not my intention to state extravagantly what the land may be made to produce, it is merely my desire to state what every man may make it yield. I do not take the highly cultivated market gardens by which I am surrounded as specimens of the state of perfection to which the land may be brought, although I would be justified in shewing that every article produced in those gardens are raw materials, produced by labour, from which bread, butter, beef, mutton, bacon, pork, lamb, milk, cheese, honey, poultry, eggs, wool, leather, and fur are one and all manufactured. We have not population for such a system of refined cultivation, and therefore I shall confine myself to the most profitable application of the producing power to the productive means of the country.

In order to accomplish my purpose with satisfaction to the public and to myself I must base my reasoning upon some general and indisputable data. I must shew what four acres are capable of producing by the labour of one man, I must shew the most profitable application of the produce, while I shall be required to state the residue after consumption of the labourer, his wife and family. The first point then upon which all are agreed, and which Mr. Cobbett has placed beyond doubt, is the fact, that a quarter of an acre of ground of moderate quality is capable of supporting a cow throughout the year. The second point relied upon by all is, that one cow will make a sufficiency of manure within the year for an acre of land, and the third and most important admission is, that one man by sixteen days' labour will be able to support a cow from the produce of a quarter of an acre.—If then we can rely upon those calculations, I would be justified in coming to the following wholesale conclusion as to the value of one man's labour

applied to the cultivation of four acres of ground :—if a quarter of an acre supports a cow with sixteen days' labour, four acres will of course support sixteen cows with two hundred and fifty-six days' labour; and supposing a cow for eight months in the year to give twelve quarts of milk a day at three half-pence a quart, the milk of the sixteen cows will amount to over £285, and, if one cow makes enough of manure for one acre, sixteen cows will make enough for sixteen acres, leaving a sufficiency for twelve acres more than the farmer requires; and which, valued at five pounds an acre, would be worth sixty pounds, which, added to the price of milk £285, would make £345.

Now it may be argued that the amount of labour for attending so large a stock could not be bestowed by a single individual. I admit it; while I feel myself justified in adopting so much of the plan as would relieve it from a charge of impossibility, while I shall state minutely the probable produce of every perch of ground; the seasons at which the several crops should be sown or planted; the times at which they would be fit for use; the length of time they would last; the amount of labour expended in their cultivation; the purposes to which they should be applied, and the profit after the support of the family that they would leave.

THE SEVERAL CROPS, TO THE PRODUCTION OF WHICH  
FOUR ACRES OF LAND, WITH THE LABOUR OF ONE  
MAN, MAY BE MOST BENEFICIALLY APPLIED.

1 Acre of Potatoes.

1 Acre of Wheat.

1½ Acres to be appropriated as hereinafter described—and  
¼ of an acre for kitchen garden.

The stock to be fed upon the produce of the land so cultivated  
to consist of—

4 Cows.

6 Pigs.

6 Sheep.

Poultry.

As I propose the acre of potatoes to constitute a large portion of the food for feeding the cows and sheep, as well as the sole food, with milk, of the pigs—and as the wheaten straw will also constitute a large portion of food for the cows, it will be seen that, independently of such food, I assign two acres of ground, or nearly so, to the support of the four cows, thus so far differing from Mr. Cobbett and others inasmuch that I allow nearly



three quarters of an acre to the support of each cow instead of a quarter of an acre, while I have the assistance of six pigs, six sheep and a quantity of poultry to aid four cows in making a sufficiency of manure for four acres, while I further discharge the labourer of many days' work by holding more than half the land in wheat, potatoes, and grass, which would not require that amount of labour that would be necessary for a succession of crops, while I further allow him the assistance of his wife and family in performing a large portion of the required service.

This arrangement is meant to apply to the system when it should be got into good working order; not presuming that any man will at once be able to step into four acres of ground with the required stock. However, apart from the confidence which possession would inspire in capitalists around him and from whom in many instances the needful may be procured, yet from a different management for the two first years he would live better than the best mechanic now lives, while at the end of that time he would be in a situation to purchase more stock than he would require. For instance, in the first year of his tenancy he may purchase four yearling heifers for three pounds each that would calve at the commencement of the third year. In the outset pigs of lower value may be purchased, and, until his stock came round to complete the plan, he may produce other crops which, though not equally remunerating, would nevertheless pay him well for his labour. When it is borne in mind that £12 will buy four yearling heifers, and that at the end of two years they will constitute the principal stock of the small farmer, the want of capital cannot in any way operate as a barrier against his success.

Indeed, it is absolutely necessary that all the operations should be progressive, and two years is as short a period as could be assigned for bringing the whole into good working order. I shall, therefore, start from that point when the farmer would be in possession of four milch cows, six pigs, and six sheep. Supposing him to be in possession in May, 1844, his arrangements would be completed in November, 1845. I state November as the period, because under any circumstances his cows, which would have calved before, would be dry or nearly so at that time: Thus, after eighteen months from the time of entering upon possession he would find his arrangements for future operations perfect.

It now becomes my duty to point out the manner in which the land is to be subsequently applied. In November, 1845, he will have stock, four in calf heifers to calve in May, six pigs, and six sheep; and his food for their support till the middle of April, will consist of an acre of potatoes, less the

family's consumption, eight hundred sheaves of wheaten straw, the produce of his acre of wheat, a quarter of an acre of rape, and a quarter of an acre of winter cabbages, to be applied as follows:—of course varying the food, taking care to give more straw with rape and cabbages than with potatoes. As much as thirty-five tons of potatoes have been produced off one acre, while twenty tons is by no means an extravagant though a large crop. I average the produce, however, at sixteen tons, and dispose of it thus:—

	Tons.
Firstly, consumption of family from 1st of November to the 1st of June, thirty weeks, at 16lbs. a-day,	
or 112lbs. per week, making	1½
Six full sized pigs, a stone and a half each per day from the 1st of November to the 1st of March,	
when five should be sold and the best killed for family use, about	6½

Of course the pig intended for family use would for the last three weeks be fed upon oats, peas, or barley, in a raw state, and the saving of potatoes would much more than pay for the oats, peas, or barley, while the pigs, being fat all through the summer, I have allowed much more than a sufficiency of food for the last sixteen weeks, and, as the dry feeding of pigs upon peas, oats, or barley, for a month or three weeks before killing, is indispensable for insuring good bacon, we may set it down that the six tons and a half of potatoes would much more than feed them in the best style, and, indeed, as will be learned from all my calculations, the potatoes, if sold, would bring more money than the profit on the six pigs from November to March. A ton of potatoes at fourpence per stone would be £2 13s. 4d., or for the six tons and a half £17 6s. 8d. I prefer, however, consuming everything on the farm, so that the labour may be sold in the highest state of manufacture; and in order that as much manure as possible may be made. There then remain eight tons of potatoes to constitute a portion of the winter food of four cows and six sheep.

Those eight tons, together with the wheaten straw, a quarter of an acre of rape, and a quarter of an acre of winter cabbages, is to constitute the whole provender, from the 1st of November to the 20th of April, when the winter tares, as hereafter described, will be ready for use. I beg it to be observed, that the calculations in which I am now engaged are but preliminary to a perfect table which I shall submit in a subsequent chapter; wherein I shall set forth the mode of cropping, the crops to be used, the time of sowing, planting, harvesting, and using; ap-



appropriating every inch of the ground to those purposes to which it should be applied with a succession of crops.

We will estimate the time from the 1st of November to the 20th of April at six months, and apply the quantity of food that I have allotted for that time, regardless of the particular seasons at which each crop shall be respectively given, a matter in which the farmer himself will be regulated by the state and condition of his cows, the forwardness of his rape, and the appearance of his cabbages. For instance, if the cows are still giving a good flow of milk in November, he must not use straw, which has a tendency to dry them up, but he should rather hold it over to that period when they ought to be dried. Under those circumstances, then, I shall shew how long each crop would feed the stock, leaving it to the farmer to judge of the proper time for applying it. I allow three stone of steamed potatoes a-day for each cow, or a hundred weight and a half for the four. That may be set down at a ton a fortnight as I have allowed overmuch for their keep—six tons for three months. Eight hundred sheaves of straw would weigh two ton and a half, and at two stone a-day for each cow would be a hundred a-day, and would last the four cows fifty days. We have, then, after consuming the potatoes and straw, to provide for less than six weeks, and for which the farmer has got a quarter of an acre of rape, and a quarter of an acre of winter cabbages, with two tons of potatoes; quite sufficient to feed four cows for four months, the residue furnishing more than ample for the six sheep for six months. The sheep may be fed upon raw potatoes, rape, and cabbages.

Here again, when I come to calculate the value of gross produce, it will be found, that I apply nearly twenty pounds' worth of potatoes, two tons and a half of straw, a quarter of an acre of rape, and a quarter of an acre of winter cabbages, to the support of the stock, at a time when the cows are rendering comparatively little profit. We have now to provide for the stock from the 1st of May to the 1st of November, and to do that we have an acre and three quarters of ground, the remaining portion being under wheat, potatoes, and kitchen garden.

A half acre of winter vetches sown in September comes into use first, and will be ready by the 1st of May; and at the rate of nearly three perches a-day, there being eighty perches in a half acre, will be ample for six lambs, the state at which I shall recommend the sheep to be laid in, six pigs of six months old, and four cows, for the month of May, when half an acre of soiling grass will be fit for use, and which will be ample for the stock for the month of June.

In July, a quarter of an acre of spring vetches sown after



the winter crop had been cut, together with a quarter of an acre of early cabbages planted in the remaining quarter of an acre of winter vetch ground will be ready, and will feed the stock till the tenth of August, when the grass cut in June will be ready for the second crop, which will last the stock till the middle of September, when a quarter of an acre of clover sown with flax will be ready for use and will last the stock to the end of September, when a quarter of an acre of early turnips, and a quarter of an acre of cabbages, will be ready for use and constitute the food of the stock, pigs excepted, during the month of October.

I have not here taken into calculation the picking to be had off the half acre of grass in October, the period at which it should be well manured, and before which it may be eaten bare by the sheep and cows being turned upon it. Nor have I mentioned the bran which will be taken from sixty stone of ground wheat, and which constitutes excellent food for cows, pigs, and poultry.

This whole process would not take two hundred and twenty days of a moderate workman's labour, while with the assistance of his wife and family, who would milk the cows, weed, do some little in the kitchen garden, feed the poultry and stock, it would not take more than one hundred and eighty days' labour, or one half the year; nor indeed ought it, for when we deduct fifty-two Sundays we leave a hundred and thirty three days for wet weather, when work may be injurious not only to the man, but to his land, and for holidays, and instruction. And now let us see what that man (made a rebel from unwilling idleness, and disinherited from society by machinery, now a beggar at the door of the capitalist for license to linger or to live upon the slavery of his wife and little children) could earn after supporting himself and his family by those hundred and eighty days labour.

I shall place him in the very worst condition, by making him sell the entire produce in the wholesale market, whereas a large portion of it may be more profitably disposed of in the retail market. Not again to travel over the old ground, and to avoid complication, I shall estimate the produce of the cows, although to be sold in the wholesale market, by putting a very low value upon the milk, and the following is the amount of provision which I deduct in the first instance from the gross amount of produce:—

One bacon pig .....	20 stone.
Flour .....	1 stone per week.
Potatoes, 16lbs. a-day .....	8 stone per week.
Milk, or butter made from the milk.....	3 quarts per day.

Eggs, poultry, vegetables and honey, as much as they can consume.

For clothing, 30lbs. of wool, the produce of six sheep at five lbs. a fleece, and the produce of a quarter of an acre of flax.

Such, I think, would be ample provision for the family, while all would be wholesome, fresh, and nutritious, instead of being purchased at twice the value in a truck shop, or bought rotten in the market at a late hour on Saturday night, when the respectables had stripped the stall of the best and left the pawed refuse for the hard-working man. The produce, after consumption, I set down as follows:—

	£	s.	d.
Produce of four good cows from the 1st of May, the time at which they should calve, to the 1st of November, average sixteen quarts a-day each, or sixty-four quarts at 1½d. per quart .....	73	12	0
Profit upon five bacon pigs for the year...	25	0	0
Profit upon six sheep .....	6	0	0
Produce of an acre of wheat, (160 stone, less by sixty stone consumed by the family), 100 stone at 1s. 6d. per stone...	7	10	0
Value of four calves at 10s. each.....	2	0	0
Eggs, poultry, honey and vegetables over what would be required for consumption	10	0	0
Value of produce after consumption .....	124	2	0
From which deduct for rent, tithe, and taxes .....	24	2	0

and we find that it leaves the sum of ..... £100 0 0 over and above all charges, demands, and liabilities, for the labour of one hundred and eighty days, besides the best of good living, and the means of laying up more woollen and linen fabric than would be required for three families. Indeed, we may safely calculate that the surplus of woollen and linen fabric, after supplying the family with an abundance of both, would furnish them with coals, candles, shoes, and hats.

Perhaps I may be asked why I estimate the profits upon the cows according to the full amount they are supposed to yield? whereas I have appropriated three quarts a-day to the use of the family. I have done so. But it is to be understood, that from the end of October to the end of January the cows will give more than three quarts a-day each, and that I have only assigned the quantity for the use of the family during those three months, and which I have not brought into account in

the gross produce. Twelve quarts a-day for three months in the year, is equal to three quarts a-day for twelve months in the year. Nor, in my calculation, do I intend to say, that a cow will give the same quantity of milk in September that she has given in May, or the same quantity in October that she has given in June, but she will average that quantity; giving the largest quantity for the four months after she has calved, and falling off from the latter end of August after she has been served, and allowing her to remain completely dry for three months before she calves.

In the above calculation, I can scarcely be said to have taken the quarter of an acre for kitchen garden into account, while I have allowed the land to be cultivated in rather a rude state, whereas, had I drawn my conclusions from the unrefuted assertions of others, I might have set down the value of produce after consumption at three hundred pounds, allowing forty-five pounds for the maintenance of the family for a year. Suppose, for instance, that I go upon the data of others, and make my calculations upon the application of one man's labour to two acres of land, allowing that a quarter of an acre will support a cow, upon even twenty days' work, and that a cow will make enough of manure for an acre of ground. If we estimate the value of a cow's milk for the whole year at £15, eight cows, supported upon two acres with one hundred and sixty days' labour, will produce

	£	s.	d.
Milk - - - - -	120	0	0
Eight calves at 10s. each -	4	0	0

and leaving all the manure of the eight cows for the two acres, we find that the man, upon a hundred and sixty days' work applied to two acres of ground, can earn £124. Or, if we choose to reduce it to the occupation of one acre, which would only take eighty days' labour, we find that a man's labour for those eighty days is worth £62.

It is folly to talk to me of the necessity of a good dwelling, and the required amount of stock in the first instance, as there are other means besides those afforded by feeding stock for making profit of land. Let those who are now disinherited get possession of the land, and within four or five miles of it they will find a better, a more healthy, and more cheerful residence than in the cold damp cellars of Leeds or Manchester, and until there is a sufficient return from their labour to enable them to build suitable residences, and to supply themselves with the required stock, let them walk four or five miles to their work and four or five miles from their work, and they will walk



the distance with light heart and step, knowing that it is labour bestowed for themselves. And until they can procure stock let them grow potatoes, wheat, and vegetables; let them feed some pigs, and, like Samuel Bridge, in a very short time they will find themselves in a condition not only to build a house and offices and to procure the required stock, but to purchase the fee simple of their farm. The one thing that they must bear in mind is this:—that their labour is the only capital that can be applied to the land, and that labour when profitably applied is the best description of manure; and instead of at once looking for a well built and well finished cottage with suitable offices and the required stock, that if they once get hold of the land, those are advantages which will assuredly follow in quick succession if they are but moderately industrious and moderately prudent.

However, I would implore those who are now destitute in consequence of the impossibility to procure work in an overstocked labour market, to consider well what their condition must be if not altered by their own determination, while I would emphatically impress upon the minds of those who are as yet more fortunate than their disinherited brethren, the fact, that their day also will assuredly come; for the same process which has caused the distress of others is day after day adding to the general calamity, and that they will not be spared. It is because I see the possibility of converting that which is now man's curse into man's blessing that I seek shelter for those upon whom the curse has fallen.

SUBDIVISION OF FOUR ACRES OF LAND INTO  
THE REQUIRED ALLOTMENTS,  
FOR CARRYING OUT THE SMALL FARM SYSTEM.

Of all things I wish to guard myself against the idea that I expect anything like a complete observance of my plan. On the contrary, I do not suppose that every small farmer will have four cows, six pigs, or six sheep; some may have more cows, some may have only one cow and more pigs; others may have more sheep, others may have no sheep; some may sell their potatoes in the market, and keep stock of one description or another fed upon green food to assist in making manure; some may have more wheat, some may have none; some may keep breeding pigs, and indeed may very profitably apply the whole farm to rearing them to that state when their neighbours would require them. Some may rear young stock to renew that of their neighbours: others may breed lambs; others may have more flax, and dress and sell it; others may keep a sufficient number of horses to put out manure, to draw produce to market, and so-forth; but what I do contend for is, that no man who works a hundred and eighty days, and who is moderately assisted by his family, can fail of insuring the living that I have set down, and the profit that I have calculated upon. In fact there is no reason why any other man should not make as much profit of four acres of land as I could make, and I undertake to test the success, by making two hundred pounds clear profit of four acres of middling ground, over and above what shall be consumed by an able-bodied man, his wife and family, besides housing them well, and clothing them well, and not allowing them to want a single comfort that a working man is entitled to, and ought to enjoy. With those preliminary observations I shall now proceed to subdivide four acres into those allotments necessary for carrying out the plan before mentioned, leaving to all the power of making such alterations as circumstances and their own will may point out.

## ALLOTMENT.

As we must start from some point, I shall begin with the first of May, when the following will be the disposition of that portion of the land assigned to what may be called annual crops, or that may be kept in constant use as kitchen garden.

	A.	R.	P.
Annual crops, - Wheat - - -	1	0	0
Potatoes - - -	1	0	0
Soiling Grass - - -	0	2	0
Kitchen Garden - - -	0	1	0
	<u>2</u>	<u>3</u>	<u>0</u>

Such we shall suppose to be the disposition of the farm in May, 1844, showing two acres and three roods in crop, and an acre and a rood to be disposed of.

Winter Vetch to be cut in May -	0	2	0
Flax and Clover - - -	0	1	0
Cabbages for Autumn - - -	0	1	0
Turnips for ditto - - -	0	1	0
	<u>1</u>	<u>1</u>	<u>0</u>

## SUCCESSION OF CROPS.

	A.	R.	P.
1845. Wheat after Potatoes [1] -	1	0	0
Winter Tares, after wheat [2] -	0	2	0
Rape, after ditto [3] -	0	1	0
Winter Cabbages, after ditto [4] -	0	1	0

	A.	R.	P.
Flax after No. 3, - 0 1 0 [5]	0	1	0
Spring Vetches after No. 4, 0 1 0 [6]	0	1	0
Ditto after No. 2, 0 1 0 [7]	0	1	0
Cabbages after No. 2, 0 1 0 [8]	0	1	0

Nos. 5, 6, 7, 8, are successions after 1, 2, 3 and 4, leaving the farm thus. In the autumn of 1845—

Wheat - - -	1	0	0
Potatoes - - -	1	0	0
Nos. 5, 6, 7, 8, stripped - - -	1	0	0
Soiling Grass - - -	0	2	0
Kitchen Garden - - -	0	1	0
To which may be added for early Turnips	0	1	0

Making -	<u>4</u>	<u>0</u>	<u>0</u>
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1845. Nos. 1, 2, 3, 4, succeeded by 5, 6, 7, and 8, as last year, after wheat.

		A.	R.	P.
1846.	Potatoes, after 5, 6, 7, and 8, -	1	0	0
	Wheat, growing after Potatoes of 1845, 1	0	0	
	Wheaten Stubble, as disposed of in } Nos. 1, 2, 3, and 4, succeeded } by 5, 6, 7, and 8, - }	1	0	0
	Soiling Grass - - -	0	2	0
	Kitchen Garden - - -	0	1	0
	Turnips - - -	0	1	0

So the succession goes on, year after year, always taking care that the ground where flax is sown shall be changed, so as not to produce two crops in less than five years off the same ground. By this process the land will become richer and richer every year; while the improvement in the crops will astonish even the labourer himself. And now I shall point out the time of sowing each crop, and the probable period at which the several crops will be fit for use.

After the wheat is reaped, which will be about the tenth of August, a quarter of an acre of winter cabbages should be taken from the seedling bed in the garden, and transplanted with a sufficiency of manure. A quarter of an acre of rape should be the next crop sown in the wheaten stubble, and, after those crops, a half acre of winter tares, with a sprinkling of rye-grass or oats, for standards, should be sown in the other half acre, from the middle till the 20th of September. I have given directions in Number 2 for cultivating those crops. The rape will be fit for use any time after Christmas, and should be cleared off by the first of March, to make way for flax, which should follow it. The cabbages will be fit for use shortly after the rape, and should be cleared off about the same time, to make way for the first sowing of spring tares. A quarter of an acre of early cabbages should be planted in No. 2, after the winter tares; and spring tares should be sown in the remaining half.

The clover should be sown with the flax, and the crops which succeed those that were sown after the wheat crop being all off before autumn, that portion of the ground, amounting to one acre, should be trenched up for potatoes for the following spring; so that we'll say in July of each year the disposition of the farm will stand as follows;—

	A.	R.	P.
Wheat	1	0	0
Potatoes	1	0	0
Soiling Grass	0	2	0
Kitchen Garden	0	1	0
Early Turnips	0	1	0
Early Cabbages	0	1	0
Spring Tares	0	2	0
Flax and Clover	0	1	0

By this table it will be seen that the ground from which the crop of spring tares had been cut would come into earlier use for winter cabbages and rape than the wheaten stubble would, nearly by a month, and that the farmer might commence planting winter cabbages or rape in the ground that had been cleared of spring tares each day, for the use of the cattle. This and many other improvements his own observations would very speedily suggest.

There are many other things that must be left wholly to the discretion of the farmer. For instance, many may prefer mangel wurtzel to turnips, as I do; others may prefer more ground under cabbages and less under tares, as I certainly should; but my object has been to deal rather with a rude than refined system; well knowing that the science would be yearly improved by that class of men whose industry, while employed, made England the envy and admiration of surrounding nations, and whose poverty has reduced the country to the degrading position of a sea-bound dungeon.

With respect to a close following of the plan as laid down above, a word or two of advice may not be unnecessary. In a former number, under the head "Wheat," I gave my reasons for not assigning that wonderful importance which most writers do to the wheat crop. And, although I have assigned a whole acre, or one-fourth of the holding, for producing wheat annually, yet, by comparison with any other crop, it will be found of less value, and, simply, because less labour is required for its cultivation. A good acre of potatoes will be richly worth £40 and more, while I only estimate the value of a crop of wheat at £12; that is, one hundred and sixty stone, at 1s. 6d. a stone. A good acre of cabbages would be worth £30 for feeding cattle; and in the neighbourhood of a town, if in good season, may produce £70, leaving a quantity of outside leaves for feeding stock. An acre of rape, if allowed to run to seed, would be worth £20; while the stalk, if burned, would make a valuable manure. A good acre of clover will feed four cows for four months in the year; and, averaging their milk even at one shilling and sixpence a-day each, or six shillings for the

four, will produce £36 worth of milk, besides a quantity of manure.

Even an acre of the best weed, as I call grass, will produce in hay, besides after-grass, nearly as much as an acre of wheat, and, therefore, I am not to be understood as advocating the system of taking a wheat crop every fourth year, or, in other words, of having one-fourth of the land constantly under wheat. A half acre of wheat upon four acres would but call upon the land for a wheat crop every eighth year; while, if attention was paid, only one crop of flax would be taken off in sixteen years, that is, one-sixteenth of the four acres only would be under flax in each year. Now, of all things it is essential that the farmer should have the whole question before him, and not merely draw his conclusions from four acres of this kind or that kind or the other kind of land—the man with heavy stiff clay-land arguing the expence of spade husbandry, and the unfitness of the soil for turnips, potatoes, and most green crops—the reader must take at least one thousand acres, or what may be called a small farm district, into his calculation; and he must also look upon that quantity as yielding, though not exactly the produce that I have laid down, yet the same amount in return for the labour expended. For instance, one man may devote the whole of his farm to the support of horses for working a threshing-machine, a draining-plough, or heavy roller, or breaking stiff soil with the plough, or putting out manure, and for Sunday or holiday excursions, or drawing produce to market. Another man may devote the entire of his farm to the keep of stallions, bulls, boars, and rams, for the use of the district. Others may keep a portion in hay, which would be always in demand at retail price; a little here and a little there for a sick cow, and so-forth. Others may grow nothing but potatoes and wheat. Others may grow oats; others may grow more flax. Others, building upon the partial neglect of some, may grow all kinds of seed required for the use of the district. Others may very profitably rear lambs of a good breed, or heifers, to renew the stock of those who keep milch cows; while others may keep all pigs, either for breed or fating. But upon the whole I mean to assert, that the two hundred and fifty farmers, occupying the one thousand acres, and cultivating it as they may, would feed their families as I have described, and have each one hundred pounds and more at the end of the year.

Some rules must be invariably observed, and their observance would be critically enforced even upon the most dull and inattentive by those advantages which the careful would derive from an observance of them; for instance, no man should keep



a bad cow for a second week, nor should he boggle at any price for a good one. Every day that he keeps a bad one is increasing his loss, and the sooner he replaces her with a good one the sooner he will repair his loss. I have estimated the average milk of a cow at sixteen quarts a-day for six months in the year, and only three quarts a-day for the remaining three months in the year out of the nine that she should give milk; but if the cows are good, and properly attended, and milked three times a-day, as I have recommended, I am very much below the average.

In the second volume of the Library of Useful Knowledge, entitled "British Husbandry," I find the following statement, and, as I have before observed, this, of all others, is the most valuable work, at all events in my opinion, that has been published upon practical farming. The following is the extract:—"Regarding *quantity and quality of milk*, there are few persons who have not heard of Mr. Cramp's cow, which during four years—from 1805 to the end of 1808—yielded the extraordinary amount of 23,559 quarts of milk, producing 2,132 lbs. of butter, and various instances of nearly equal productiveness have been cited in many publications. The largest average product which has been stated by any writer in whose practical experience confidence can be placed, is, however, that of Mr. Aiton, who rates the yearly average return of the best kyloes at 4,000 quarts within three hundred days, or until they run dry; thus—

		QUARTS.
First fifty days, 24 quarts per day	-	1200
Second " 20 "	-	1000
Third " 14 "	-	700
Fourth " 8 "	-	400
Fifth " 8 "	-	400
Sixth " 6 "	-	300

And he cites an extensive Ayrshire dairyman, as saying—"That he would not keep a cow on his farm that did not yield her own value, or her weight in sweet-milk cheese, every year." He, however, admits—"That many cows will not yield more than half that quantity; and that, probably, six kundred gallons in the course of the year may be about a fair average of the Ayrshire stock:" if equalled, we believe it will not be found exceeded by any other breed in the kingdom."

Now, from the above calculation of the produce of Mr. Cramp's cow, as well as many other instances which the writer says has been cited of nearly equal produce, we find, if we estimate the value of the butter at a shilling a pound, the whole made in the four years amounted to £106 12s.; while, by the

usual mode of estimating the milk at one-half the value of the butter, which would be £53 6s., we find that Mr. Cramp's cow, and several others, have yielded £159 18s. worth in four years, or within sixpence of £40 a-year; while I only allow £18 8s., or less than one half, for the produce of a good cow for a year; while I see no earthly reason to prevent any small farmer having just as good stock as those referred to in the above extract. And, then, if it is admitted that a quarter of an acre of ground will support a cow for the year, four acres would support sixteen cows for that time; and if each cow was as good as Mr. Cramp's, or the several others referred to in the extract, the produce of the four acres would amount to six hundred and forty pounds a year: while I am satisfied with less than a fifth. If we estimate the amount of milk given by Mr. Cramp's cow at three halfpence a quart, we find that it leaves for the four years £147 19s. 10½d., or for each year, £36 19s. 11½d.

There always appears to be some insurmountable difficulty in the way of performing very easy work, and I cannot for the life of me see why equal improvements in agriculture to those made in machinery may not leave the experiments of Mr. Cramp and others as far behind as the power-loom has left the hand-loom. My own impression is, that at the present moment the science of agriculture is in the cradle. I cannot give a better illustration of the value of labour than the following anecdote will furnish. My father had a tenant whose name was Phelim Conolly, who was a remarkably large man, and still more remarkable for the immense size of his head and hand. It was the practice for the wife or one of the children to carry the man's dinner to the field during harvest, or when time is precious. Conolly's wife took his dinner to him when he was occupied in reaping a field of wheat; while he was eating she was binding, and when she came to the "head-land," that is the part upon which the horses turn while ploughing the field, and which is consequently the best worked, she found the sheaves twice as thick upon the "head-land," and the wheat much better than upon any other part of the field; "Wisha, Phelim," says she, "how is it that this strip along here is so much before the rest of the field?" "Ogh!" replied Phelim, "my jewel, its the head-land." "Wisha, then," rejoined Mrs. Conolly, "bad luck to your chuckle head and plather fist, why the devil didn't you make head-lands of all the field." Now, rude as this dialogue may appear, yet it furnishes a very happy illustration of what may be done with the land; while, had Phelim's head-land been as well cultivated as it might be,

it would have yielded more than double, than even that which excited the admiration of Mrs. Conolly.

So far I have described what a cow may be made to produce, and I have illustrated the effect produced upon the wheat crop by additional labour; and now I shall cite a very high authority in support of my general view of the capability of the land when applied to other purposes than those of producing wheat, milk, or butter. I find the following vouched for by the Editor of the *Leeds Mercury* newspaper, and as that journal is, out of all comparison, the ablest and most consistent organ of free-trade, as well as the highest authority upon all commercial questions, I presume that the facts vouched for upon the faith of the individual by whom they have been furnished, will not for a moment be doubted. The following is the extract as it appeared in the columns of that journal:—

“GROWTH OF POTATOES.—A correspondent who takes a good deal of interest in the production of potatoes, and who on a former occasion furnished us with a communication on this subject, sends us the following as the result of his labours. The experiments may be found very useful to those parties who are just now engaged in cultivating small plots of ground. The plan has been pursued for two years; the month of March in both years being selected for planting. In order to show which plan is the most productive, every row of potatoes is reckoned ten yards long, and the first row to produce forty pounds:—

lbs.

“1st.—Ashtop Potatoes, size of a hen egg, cut in two, but planted before they begin to sprout; many small ones when ripe - - - 40

“2nd.—Ashtop Potatoes, cut in two, but sprouted one inch before they were planted; the tops were shorter, and the potatoes ready for use fourteen days sooner; when ripe, few small - - - 30

“3rd.—Ashtop Potatoes, the size of a goose egg, planted whole, and sprouted one inch; when full grown very bushy, and few small - - - 40

“4th.—Ashtop Potatoes, cut in two, and sprouted one inch; they were ready for use fourteen days sooner than the above - - - 45

“5th.—Ashtop Potatoes, cut in two, and planted before they began to sprout; when ripe, part small - - - 40

“It appears in this statement that one Ashtop potatoe, the size of a hen egg, cut in two, produced the same weight as the size of a goose egg set whole: the only difference is, that there were less small in the latter; and it will be found that a potatoe



cut in two, will, after having made its appearance above ground, in the course of ten or fourteen days, appear more promising than a whole potatoe; in about a fortnight afterwards, however, the whole one will take the lead, but the cut potatoes will be ready for use first.

	lbs.
" 6th.—Prince Regent Potatoes, the size of a wall-nut, planted whole, before they began to sprout -	80
" 7th.—Prince Regent Potatoes, cut in pieces, so as to leave only one eye for a plant; very weak -	30
" 8th.—Prince Regent Potatoes, the size of a cricket-ball, cut in two, but sprouted one inch -	160
" 9th.—Prince Regent Potatoes, sprouted one inch, and planted whole -	120
" 10th.—Prince Regent Potatoes, cut in pieces, so as to leave only one eye for a plant; strong tops -	60
" 11th.—Whole Prince Regents, the size of a child's ball, planted with long stable litter -	22
" All the potatoes (excepting No. 11) were planted with manure, composed of ashes, road-scrapings, lime, soot, night soil, &c., well mixed together.	

" The land is rich black soil, clay, sand, and red earth, and in order to insure a fair trial, six rows of each sort of potatoes were planted in different parts of the field; and potatoes have been grown on the same land for four years, and the last crop has been the best.

" Our correspondent formerly sent an account of ten yards ten inches producing 10 stones 5 pounds, the tops weighing 7 stones 3 pounds; out of twelve rows, measuring ten yards each, he obtained 70 stones 5 pounds; or, out of one hundred and twenty yards, 985 pounds of potatoes: twenty-four of these potatoes weighed 28 pounds.

" *Ashtop Potatoes*.—The ridges were twenty inches asunder.

" *Prince Regents*.—The ridges were thirty inches asunder."

Now, as there are 4,480 square yards in an acre, it follows that if 100 square yards produce, as the *Mercury* asserts, and as I sincerely believe, 1,920 lbs., an acre, cultivated in the same way, will produce 92,928 lbs., and four acres will produce 371,712 lbs.; and estimating a bushel of potatoes, weighing 72 lbs. at one shilling and sixpence, or something about three pence half-penny a stone, we find that the *Mercury* estimates the value of the produce of four acres at something more than £487. Now, suppose that we deduct so large a sum as £87 for manure, seed, and rent, we find that one man, by cultivating four acres in the

year, can earn four hundred pounds, or more than a pound a day, wet days, Sundays, and holidays included.

Now, suppose we adopt the scale by which we have reduced Mr. Cramp's profit, and apply it to the above calculations, that is, if we halve the amount, we find that a man will have two hundred pounds for the labour of a year, being yet considerably more than I have allowed; while it will be borne in mind, that in addition to the testimony of Samuel Bridge, who has produced alternate crops of potatoes and wheat for twenty-seven years, we have the authority of the correspondent of the *Mercury* bearing testimony to the fact, that the process, so far from exhausting, enriches the soil. He says, "the land is rich black soil, clay, sand, and red earth, and in order to ensure a fair trial, six rows of each sort of potatoes were planted in different parts of the field; and potatoes have been grown on the same land for four years, and the last crop has been the best."

Having so far explained the means by which a labouring man may support his family, and save one hundred a year to be expended in the commercial market, I may now ask those who so loudly call for an extension of trade, what the commerce of the world would be, compared to such a home-market as one million heads of families located upon four million acres of land would furnish, leaving a hundred millions a year of good and substantial produce, such as bacon, mutton, milk, butter, poultry, woollen and linen fabric, to be exchanged for the produce of machinery, regulated in its price by the ability of the consumers to purchase it.

Without going deeply into the science of political economy, the two contending parties will find it difficult to reconcile the working people to that system which starves them in the midst of a superabundance produced by their own hands. Surely the promised benefits from free-trade should be regulated by some graduated scale; and if the tariff has gone to the extent of reducing prices, those who cultivate the soil should find a better remuneration from the change than that miserable and squalid condition which the advocates of free-trade describe them as being in. Upon the other hand, if the promised benefit was to confer all the anticipated blessings, each extension should be followed by an increase in the comforts of those who are engaged in the trade. But while the agriculturist is consigned to starvation in the midst of abundance of his own creation, and while the operative is in nakedness while surrounded with a superabundance of that, in the production of which he is engaged, what language, what art, what logic, what eloquence can inspire him with confidence in a system, under which he grows daily worse and worse.

## BUILDINGS.

In my frequent experiments I have always found that the great advantage I had over my neighbours was derived from my capacious out-offices, having very nearly ten thousand square feet for farming purposes, and built of the very best materials; and, therefore, I attach great importance to a sufficiency of farming offices.\* There is no person who has not in the winter time frequently observed a poor horse or cow shivering under a hedge, and especially in Ireland, where the very largest farmers' stock are allowed to remain in what is called the night-park during the whole of winter. Not only does this practice lead to the great detriment of the stock, but it also leads to the sacrifice of a large quantity of manure. If any person should be at all sceptical as to the effect produced upon cattle that are allowed to remain unhoused during the winter, they need but take the trouble of comparing their appearance with those that have had shelter from the weather.

My own opinion is, that an in-calf heifer, which, if housed during the winter, would fetch ten pounds when about to calve, that the same heifer, unhoused during the winter, would not fetch eight pounds. And, as regards sheep, I have constantly housed from a hundred to a hundred and fifty every night in the year, and, by proper attention to the sheep-house, I have found that my flock has always escaped those diseases occasioned by continuous wet, while their wool has always been better than my neighbours. I do not remember having lost a sheep from any disease, and I believe that most diseases are occasioned by a heavy fleece of wool being constantly wet. One great object therefore, and, indeed, the very next in importance to the house for the family, is that of houses for the stock. I know full well that a man possessed of four acres of ground, and who had to walk some distance to his farm, would be very apt to throw up some kind of a hovel wherein to thrust himself as speedily as possible. His first care, therefore, should be to secure the means of building himself a suitable dwelling, and

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\* I have had under roof, and lock and key, at the same time, a sufficiency of turf for twelve months, fifty tons of hay, twelve thousand sheaves of corn, with houses to receive the straw when thrashed, one hundred and fifty sheep housed, thirty-five head of cattle, each having a separate house, twelve horses, each having a stable to himself; a large quantity of manure under sheds; the produce of several acres of potatoes housed, and sixteen men threshing, with calf-houses, fowl-houses, dairy, and over forty pigs, with a considerable quantity of room to spare, besides having all the farming implements under cover.



as that purpose could only be effected by profit made of his stock, I would recommend him to commence with his out-offices, and which should consist of the following buildings :—

**A Cow-House.**—If for four cows, twenty-four feet long and ten feet wide, divided into four stalls, each partition being four feet high ; thus allowing the cow to have perfect freedom to lie down and get up with perfect ease, not being tied, or in any way confined. The expence of this building, if economically set about, would be very trifling, for this reason, because in my plan of a farm-cottage I propose that the back wall should be shedded down to constitute the required offices. The back wall of the house would consequently constitute the main wall of the cow-house, and the only other building that would be required to complete it would be two end walls six feet high.

**SHEEP-HOUSE.**—A sheep-house of five feet wide and ten feet long, that is, the width of the cow-house constituting the length of the sheep-house, would be more than ample for six sheep ; and which, with the end walls of the cow-house, and the twenty-four feet allowed for that building, would occupy thirty feet six inches ; the six inches being the outside wall of the sheep-house.

**PIG-STYE.**—As I propose allowing forty feet in the clear for the family dwelling, we have left nine feet of the back wall against which the pig-stye should be erected ; thus, having all the offices, with the exception of fowl-house, dairy, and privy, we may say under the same roof, and requiring no additional brick or stone work beyond the mere erection of the partitions. The pig-stye would admit of sufficient room for sleeping, and a yard for feeding.

**DAIRY.**—The dairy should be shedded down at one gable end of the house, and its dimensions should be twelve feet by ten feet, and, as the width of the house in the clear would be eighteen feet, the remaining part of the end wall would leave eight feet by twelve for potatoes and fuel. At the other gable should stand

**THE FOWL-HOUSE, AND A SHED FOR FARMING IMPLEMENTS,** with a sufficiency taken off for a commodious privy.

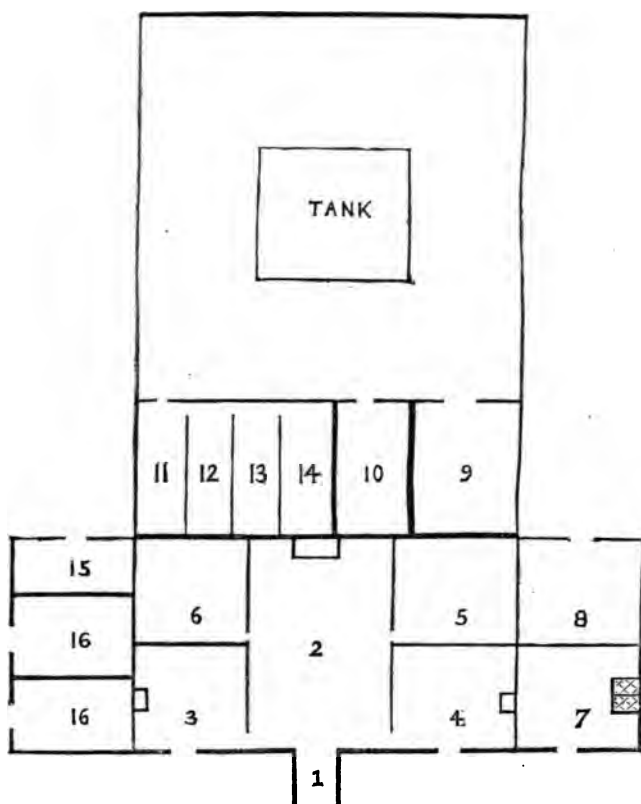
All except the dairy should front to the yard, and the dairy, for the advantage of light as well as appearance, should be entered from the front. So far I think I have very minutely

explained what my intentions are with respect to the necessary out-offices, and now for

#### THE DWELLING HOUSE.

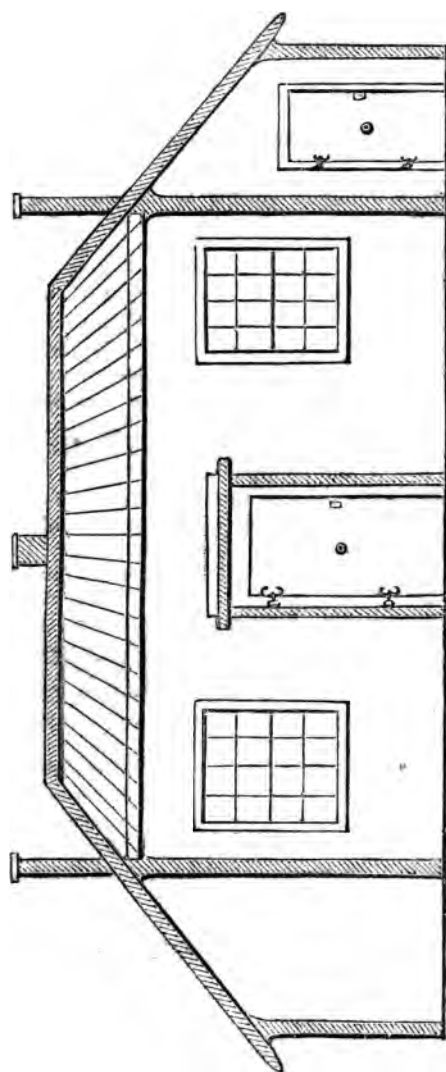
I do not seek to restrict any man's fancy to that description of house which takes my own, and which is as follows:—I propose the plan, of which the wood-cuts in the two following pages give an outline, as well for the dwelling-house as the out-offices, and, by reference to that, the whole may be comprehended in a single glance. The dwelling-house is forty feet long in the clear, and nineteen feet wide, consisting of five rooms, and no stairs or back door which is always a nuisance.

- No. 1.—Porch; six feet square, with benches for wash-tubs and sink.
- „ 2.—Kitchen; sixteen by eighteen feet.
- „ 3.—Parlour; ten feet by twelve.
- „ 4.—Front Sleeping-Room; ten feet by twelve.
- „ 5.—Sleeping-Room; twelve feet by eight.
- „ 6.—Sleeping-Room; twelve feet by eight.
- „ 7.—Dairy; twelve feet by ten.
- „ 8.—Potatoe and Fuel-house.
- „ 9.—Pig-stye.
- „ 10.—Sheep-house.
- „ 11, 12, 13, 14.—Cow-houses.
- „ 15.—Privy.
- „ 16.—Fowl-house, and Shed for Farming Implements.



GROUND PLAN OF DWELLING HOUSE, OFFICES, AND FARM YARD.





ELEVATION.

Now such would constitute the whole amount of buildings required by a four-acre farmer, as I take it for granted that every man who had corn would take advantage of the threshing machine.

#### FARM YARD.

The farm yard should consist of the width of the house, forty feet in the clear, and should extend about forty feet; that is, may be forty feet square, and need not be enclosed, nor do I think that a single lock or key would be required for the whole district. However, as tank water and manure would be the two only things in the yard, they would require no protection. In the centre of the yard a tank, twelve feet square and five feet deep, should be made and flagged at the bottom, and bricked up at the sides. There should be a fall from all the houses into the tank; that is, to the rear of the cow-houses, sheep-house, and pig-stye there should be an over-ground channel, inclining from each end to the centre of the cow-house, where a grate should be fixed, and thence communicating by a covered sewer with the tank; the remainder of the yard would be appropriated to heaps of manure. This would be very inexpensive, and would be more than fourfold paid for in the first year by the tank water. There is nothing more sinfully neglected than the preservation and application of this admirable manure. I will be bound to prove that four cows, six pigs, and six sheep will furnish, within the year, a sufficient amount of tank water to manure four acres of ground. Indeed, I have calculated that, allowing somewhere about seventeen thousand cabbage plants to an acre, one cow will furnish enough to admit of a pint to each plant, and which, if applied shortly after being transplanted by a watering pot without the rose would soon show its value. For carrots, for potatoes, especially early ones, in the dry season, for cabbages, or mangel wurtzel, to all of which it can be so immediately applied there is no better manure; while it surpasses all others in producing a heavy crop of grass. In fact, a good tank is indispensable; it is always come-at-able, and may be applied at seasons when other manures cannot.

## MODE OF ERECTING BUILDINGS.

We have heard so much of mud-cabins, and the horrible destitution suffered in them by the Irish people, that, were it not for the good sense of those for whom I write, I should be afraid to mention the subject. However, my object is to prove the great advantages that nature presents if we would only take advantage of them. I trust I am above those vulgar prejudices that have been so artfully fostered by those who have brought the people to their present artificial state. Before I give my own opinion as to the durableness, the cheapness, and sufficiency of clay as a material for building both dwelling-house and out-offices, I beg leave to submit the following extract, taken from a very able work, published within the present year, entitled, "The Improvements in Agriculture and the Arts of the United States, as set forth luminously and at length in a Report to the Congress of the United States."

## "MODE OF CONSTRUCTING HOUSES.

"Another improvement relating to a cheap mode of constructing houses where timber is scarce, which shall be at once durable and comfortable, as it has a most important bearing on the vast unoccupied lands of the several States and the nation, may not be inappropriately mentioned. Its full advantages may be appreciated by an examination of the plan, which will be found in a detailed statement, for which see 'Document' No. 15. Many who have been made acquainted with this method have deemed it most desirable to have it published for the benefit of the country at large.



## "PLAN OF CHEAP COTTAGES.

"After selecting a suitable spot of ground, as near the place of building as practicable, let a circle of ten feet or more be described. Let the loam be removed, and the clay dug up one foot thick, or, if clay is not found on the spot, let it be carted in to that depth. Any ordinary clay will answer. Tread this clay over with cattle, and add some straw cut six or eight inches long. After the clay is well tempered with working it with the cattle, the material is duly prepared for the making of brick. A mould is then formed of plank, of the size of the brick desired. In England they are usually made eighteen inches long, one foot wide, and nine inches thick. I have found the more convenient size to be one foot long, seven inches wide, and five inches thick. The mould should have a bottom. The clay is then placed in the moulds in the same manner that brick moulds are ordinarily filled. A wire or piece of iron hoop will answer very well for striking off the top.—One man will mould about as fast as another can carry away, two moulds being used by him.—The bricks are placed upon the level ground, where they are suffered to dry two days, turning them up edgewise the second day, and then packed in a pile, protected from the rain, and left to dry ten or twelve days, during which time the foundation of the building can be prepared. If a cellar is desired, this must be formed of stone or brick, one foot above the surface of the ground. For cheap buildings on the prairie, wood sills, twelve or fourteen inches wide, may be laid on piles or stones. This will form a good superstructure. Where lime and small stones abound, grout made of those materials (lime and stones) will answer very well.

"In all cases, however, before commencing the walls for the first story, it is very desirable, as well in this case as in walls of brick, *to lay a single course of slate*; this will intercept the dampness so often rising in the walls of brick houses. The wall is laid by placing the brick lengthwise, thus making the wall one foot thick. Ordinary clay, such as is used for clay mortar, will suffice, though a weak mortar of sand and lime, when these articles are cheap, is recommended as affording a more adhesive material for the plaster. The wall may safely be carried up one story, or two or three stories, the division walls may be seven inches, just the width of the brick. The door and window frames being inserted as the wall proceeds, the building is soon raised. The roof may be shingles or thatch. In either case, *it should project over the sides of the house, and also over the ends, at least two feet, to guard the wall from*

*vertical rains.* The exterior wall is plastered with good lime mortar, and then with a second coat pebble-dashed. The inside is plastered without dashing. The floor may be laid with oak boards, slit, five or six inches wide, and laid down without jointing or planing, if they are rubbed over with a rough stone after the rooms are finished. Doors of a cheap and neat appearance may be made by taking two single boards of the length or width of the doors; placing these vertically, they will fill the space. Put a wide batten on the bottom and a narrow one on the top, with strips on the side, and a strip in the middle. This door will be a batten door, but presenting two long panels on one side and a smooth surface on the other. If a porch or a verandah is wanted, it may be roofed with boards laid with light joints and covered with a thick paper dipped in tar, and then adding a good coat, after sprinkling it with sand from a sand-box or other dish with small holes.

"Houses built in this way are dry, warm in winter, and cool in summer, and furnish no retreat for vermin. Such houses can be made by common labourers, if a little carpenter's work is excepted, in a very short time, with a small outlay for materials, exclusive of floors, windows, doors and roof.

"The question will naturally arise, will the wall stand against the rain and frost? I answer, they have stood well in Europe, and the Hon. Mr Poinsett remarked to me that he had seen them in South America, after having been erected 300 years. Whoever has noticed the rapid absorption of water by a brick that has been burned, will not wonder why brick walls are damp. The burning makes the brick porous, while the unburnt brick is less absorbent; but it is not proposed to present the unburnt brick to the weather. Whoever has erected a building with merchantable brick will at once perceive the large number of soft and yellow bricks, partially burned, that it contains—brick that would soon yield to the mouldering influence of frost and storms. Such brick are, however, placed within, beyond the reach of rain, and always kept dry. A good cabin is made by a single room twenty feet square. A better one is eighteen feet wide and twenty-four feet long, cutting off eight feet on one end for two small rooms, 9 by 8 each.

"How easy could a settler erect such a cabin on the Western prairie, where clay is usually found about fifteen inches below the surface, and where stone and lime are often both very cheap. The article of brick for chimneys is found to be quite an item of expense in wood houses. In these mud houses no brick are needed, except for the top of the chimneys, the oven, and casing of the fire-place—though this last might be well



dispensed with. A cement, to put round the chimneys, or to fill any other crack, is easily made by a mixture of one part of sand, two of ashes, and three of clay. This soon hardens and will resist the weather. A little lard or oil may be added, to make the composition still harder.

"Such a cottage will be as cheap as a log cabin, less expensive than pine buildings, and durable for centuries. I have tried the experiment in this city, by erecting a building 18 by 54 feet, two stories high, adopting the different suggestions now made. Although many doubted the success of the undertaking, all now admit it has been very successful, and presents a convenient and comfortable building, that appears well to public view, and offers a residence combining as many advantages as a stone, brick, or wood house presents. I will add what Loudon says in his most excellent work, the *Encyclopædia of Agriculture*, pp. 74 and 75 :

"The great art in building an economical cottage is to employ the kind of materials and labour which are cheapest in the given locality. In almost every part of the world the cheapest article of which the walls can be made will be found to be the earth on which the cottage stands, and to make good walls from the earth is the principal part of the rustic or primitive builder. Soils, with reference to building, may be divided into two classes : clays, loams, and all such soils as can neither be called gravels nor sands, and sands and gravels. The former, whether they are stiff or free, rich or poor, mixed with stones, or free from stones, may be formed into walls in one of these modes, viz : in the pise manner, by lumps moulded in boxes, and by compressed blocks. Sandy and gravelly soils may always be made into excellent walls, by forming a frame of boards, leaving a space between the boards of the intended thickness of the wall, and filling this with gravel mixed with lime mortar, or, if this cannot be got, with mortar made of clay and straw.

"In all cases, when walls, either of this class or the former, are built, the foundations should be of stone or brick, and they should be carried up at least a foot above the upper surface of the platform."

"We shall here commence by giving one of the simplest modes of construction, from a work of a very excellent and highly estimable individual, Mr. Denson, of Waterbeach, Cambridgeshire, the author of the *Peasant's Voice*, who built his own cottage in the manner described below :

"*Mode of building the mud walls of cottages in Cambridgeshire.* After a labourer has dug a sufficient quantity of clay for his purpose, he works it up with straw ; he is then



provided with a frame eighteen inches in length, six deep, and from nine to twelve inches in diameter. In this frame he forms his lumps, in the same manner that a brickmaker forms his bricks; they are then packed up to dry by the weather; that done, they are fit for the use as a substitute for bricks. On laying the foundation of a cottage, a few layers of bricks are necessary, to prevent the lumps from contracting a damp from the earth. The fireplace is lined and the oven is built with bricks. I have known cottagers, where they could get the grant of a piece of ground to build on for themselves, erect a cottage of this description at a cost of from £15 to £30. I examined one that was nearly completed, of a superior order: it contained two good lower rooms and a chamber, and was neatly thatched with straw. It is a warm, firm, and comfortable building, far superior to the one I live in; and my opinion is, that it will last for centuries. The lumps are laid with mortar, they are then plastered, and on the outside once rough-cast, which is done by throwing a mixture of water, lime, and small stones, against the walls, before the plaster is dry, which gives them a very handsome appearance. The cottage I examined, cost £33, and took nearly one thousand lumps to complete it. A labourer will make that number in two days. The roofs of cottages of this description are precisely the same as when built with bricks or with a wooden frame. Cow-house, sheds, garden walls, and partition fence, are formed with the same materials; but in all cases the tops are covered with straw, which the thatchers perform in a very neat manner."—DENSON'S *Peasant's Voice*, p. 31.

Above, then, the reader has the testimony of persons who have not only seen, but who actually live in clay houses. Mr. Cobbett objected to potatoes in consequence of their easy production making the Irish people an easy prey to the oppressor, and not because he would have limited the use of the potatoe when applied to its proper purposes, so perhaps the growler may object to a clay house, because the Irish are known to suffer great destitution in such buildings; however, I will add my testimony to that already given, and will further suggest some improvements upon the plan. A great objection to clay houses is, that they are in general infested with vermin, whereas that proceeds from the mode of roofing and that alone; clay houses being usually thatched with straw, whereas they may be slated or tiled just as brick or stone houses, and would be then much freer from vermin than either of the latter.

I have seen in Ireland clay houses in perfect repair that have been inhabited for more than two hundred years, and many of them two stories high, free from damp, warm and comfortable.

I have also seen walls inclosing large parks and wholly exposed to the weather that have stood for centuries and are now sound and solid. Indeed, we need not go to Ireland for proof of this assertion, as the traveller may see many of a similar description still standing between Loughborough and Leicester. I do not however agree entirely with the plan laid down in the above extract, because I am of opinion that the whole house may consist of one brick, thereby saving the expence of moulding and of mortar.

The plan universally adopted in Ireland is as follows:—the site of the house is first laid out, and from the space intended to constitute the interior, and that which is intended for the "bann" or yard, the earth is dug, the stones are picked out, it is then wetted and well trampled, after which chopped straw is mixed with it, when it is tempered to the consistency of mortar fit for use, and, when in that state, the walls of the house are erected as if by magic. The plan however which I recommend as an improvement upon the foregoing is the following.

#### MODE OF ERECTING A CLAY HOUSE.

The place intended for the tank should be excavated, and to it should be added a spit from the space intended for the house, and as much more as would be required should be taken from the farm yard. As soon as there is a sufficiency of earth it should be screened as gravel is screened, in order to rid it of the stones. It should be then brought together in the most convenient place for use, wetted, and trampled with cattle; after which chopped straw, as directed in the extract, should be mixed through it, and then, without a stone or brick foundation, it will constitute as good materials as either brick or stone for making a house of any dimensions of two stories high. The walls may be a foot and a half thick, and may be made with the greatest accuracy by applying a frame of the same dimensions, say ten or twelve feet long, three feet high, and a foot and a half wide, merely consisting of two planks, ten or twelve feet long and three feet wide as a gage.

When the wall is perfectly dry it will be ready for the roof, which should be slate or tiles. The outside should be pebble-dashed after it has got a coat of lime mortar, and the inside may be plastered and made ready for either paint or paper, and when perfected I would rather live in it than in either a stone or a brick house. It will last for centuries. It will be free from damp, it will be warm, free from vermin and *never require any repairs.*



The Dairy, the Fowl house, and the Potatoe house may be all built of the same materials, so that nature has placed the means of building a habitation within the reach of every man. It must be distinctly understood, however, that, in districts where brick or stone are plenty and prejudices strong, every man would be at perfect liberty to follow his own taste, while my object is to get over the eternal obstacles that casuists, political economists, and free traders ever interposed between the working man and comfort, always leading him to a belief that without the intervention of capital he should starve.

I have now concluded my work so far as relates to the practical management of Small Farms. Had the condition of those for whom I write justified me in writing a larger, and consequently a more expensive volume, I might perhaps have entered more into detail; however, after a very close examination, I cannot discover that I have omitted any thing necessary for a Small Farmer to know.

In a previous number I have directed the attention to the great advantage that might be derived from sowing a small portion of each allotment with French furze, a food to which cows and horses are very partial; but, as I did not consider it a question legitimately connected with agriculture, I abstained from giving it a place under any general head, while I esteem the practice of so much value as to recommend its adoption, and the more especially because the preparation for the crop would in the outset furnish the small farmer with a large quantity of the very best manure wherewith to commence operations. Suppose, for instance, that he should decide upon having a quarter of an acre of ground under furze, he may take two or three feet of the surface for manure, and the substratum will produce a better crop than the richest surface would have produced, while the rich mould taken from the surface, if made into a heap and frequently turned when the farmer has nothing else to do, will furnish an abundance of the very best description of manure, and, if mixed with lime, so much the better. Throughout the winter the furze of the year's growth will supply his cattle with excellent food, and which they very much prefer to the best hay. The mode of using it is as follows: the year's growth should be mowed down with a strong scythe, as required for use, the furze should be then bruised in a machine or pounded in a stone trough with a heavy mallet, and may be given to cattle until they begin to blossom, after that they engender worms and should be discontinued. As I before stated, I have followed the practice myself for many years and have discovered its advantages, and would strongly recommend its adoption by all farmers. The mode of renewing the crop is very simple and inexpensive, and is performed as



follows: when the stick or stump becomes coarse, and when the plant presents an unhealthy appearance, the whole should be burnt down during the first fine weather in Spring, after which the young sprouts will shoot through the ashes from the level of the surface and will be fit for use in the same season. This operation will not require to be performed oftener than perhaps once in ten years, and it is a crop which never fails, and which no weather affects, and therefore a safe and inexpensive one.

Since I commenced my work upon the Practical Management of Small Farms, many persons having spare capital have commenced experiments upon the land, and from all from whom I have heard upon the subject, I learn that my calculations, as to profits, are likely to be more than realized. Upon the other hand, I receive numerous letters from persons who are anxious to commence operations, but who are also desirous to receive answers from me on several points upon which they are ignorant: had those parties waited for the completion of my work, they would have found the required information, while they must admit, that it would have been impossible for me to enter into correspondence with each individual who may desire special answers to their communications. From the progress that the landed question is making, not only among the working classes who have been heretofore wholly ignorant upon the subject, but from the degree of attention which it must receive from capitalists and the government, as the only means of righting the country, I may, ere long, feel myself called upon to publish a more elaborate work upon agriculture. The commission now prosecuting its labours in Ireland upon the question of landlord and tenant, and also the increasing importation of foreign stock, will lead the public mind to consider the landed question with more attention than it has hitherto bestowed upon it.

For my part, I feel convinced that there now remains no method whereby the higher and middle classes can be relieved from the threatening distress, other than an improved system of agriculture, and whereby all our nonconsuming system-made surplus population might be profitably employed. If I could bring myself for a moment to believe in the anticipated benefits from what is called Free Trade, I should still more urgently press the necessity of the small farm plan, not more from my conviction of the ruinous disappointment which would otherwise inevitably follow the establishment of the free trade principle, than from a desire so to regulate the labour market, that demand and supply may be governed by wholesome regulations. I stated in the outset that the greatness of a country must consist in the aggregate of happy individuals, and not in the concentrated *wealth of speculating bodies*. England is now strong in the

latter, but weak in the former ingredient. I have set plainly before the reader the immense advantages which a natural state of existence presents over that artificial and dependent state to which the present system has brought them; I have laboured hard and incessantly for many years to inspire the industrious of all classes with self-respect, and a knowledge of their own value to society. Neither have I laboured in vain, as we find that the question of the land in one shape or the other is made the foundation of all grievances and complaints, while the necessity of dealing with it in one shape or the other has at length forced itself upon the consideration of the cabinet, and as population increases the necessity for the adjustment of the question will necessarily increase with it. All the discussions in the House of Commons and out of the House of Commons upon the question of free trade, and any law that may be made upon the subject, will all end in talk and disappointment, as the accomplishment of the full desires of the free trade party must inevitably, and after a very short trial, lead even to their own dissatisfaction. Foreign countries will not allow the English parliament to give and take as it pleases.

Free trade is a game at which two can play, and those who have the controul over the raw material, and who also constitute our best customers for the manufactured article, have at least two to one in their favour. Upon the other hand, is it not monstrous that while other nations are directing their every attention towards making themselves independent of England, that a class of Englishmen should the while be engaged in an endeavour to make Englishmen still more dependent upon foreign states. If it is wise in the foreigner, and the wisdom is admitted, to do for himself that which England has been in the habit of doing for him, surely it would be equally wise of the Englishman to do for himself that which will make him independent of the foreigner! Over all English produce, save the produce of the land, foreign states have controul, and their legislation thwarts and destroys our best intentions. If we seek to depreciate their produce by the production of cheap labour, their people, with more controul over their government than our people, demand and receive protection, and, therefore, the question of free trade is not an English but a universal question, one in which all nations will have their fair share, while no other government in the world can interfere with any legislation affecting English agriculture.

I entertain but very little doubt that the next session of parliament will be almost exclusively devoted to the landed question in one shape or other. In fact, in my letters written to the Irish landlords from York Castle, in 1841, I predicted the very state of things which is now fast coming about; and I



now assure the landlords of both countries that the question is whether they or others shall do what the present condition of society demands. It is wholly impossible that the present system of keeping land in the wholesale market for the purpose of monopolizing legislation can co-exist with a rapidly increasing population. The system of stopping holes, of patching up, and of mending, has gone too far; society must be based upon a new and stable foundation, that foundation is the land. Our artificial system has centralized wealth and poverty; the wealth confined to a very few, and poverty raging amongst the many. It has also centralized opinion, an opinion by which the system must be tried, indeed it has been tried and condemned, and lives at the present moment, now upon ephemeral prosperity, and again upon the law's rigour; temporary quiescence existing, while orders are being hastily executed, and dissatisfaction suppressed by brute force upon the return of idleness. It is against this system of uncertainty that I the more particularly write. The working classes will not much longer tolerate it, while the declining tradesman will find that upon him at last devolves a great portion of the evil, inasmuch as he is compelled to maintain the hands of the speculators during the season of idleness, while he receives no share of those profits which the masters have wrung out of them, during the season of toil. It is this inequality that leads to dissatisfaction; it is this injustice that requires correction; it is to this adjustment that government must direct its attention. The old system of allowing class to feed upon class cannot be carried on much longer, and for this very simple reason, because one very small class has, through the instrumentality of a non-consuming producing power, contrived to appropriate to themselves all the monies that should belong to all, and no law can be framed to get at an equitable distribution of the national wealth so usurped. They would be compelled to vest their surplus capital in the landed market if that market was once opened, while the equalization of wages would establish a more equitable standard of competition in the manufacturing market, and place all, as heretofore, upon something like an equality.

All must now be awake to the awful inroads made upon the social comforts of the working classes. Perhaps the best picture that can be drawn of the present gamblers in human labour is to represent them in their former character, and in their present position. In the olden times, when a good understanding existed between the master, and some twenty or thirty manual labourers, they played for pence and the game was fair. If the profits of the masters were comparatively small, it was because an equitable distribution was made of the profits to all; and society was seldom disturbed by any misunderstanding.



ing, which the good sense of the interested parties did not very speedily reconcile, without the interference of the law, the military, the special constables, or the police. At that time, the small masters were not invested with the double character of employers and justices!

When machinery was introduced, and as it progressed, they began to gamble for shillings in the first instance, and the pennies were put out of play. As new inventions or improvements went on, they began to gamble for pounds, and the shillings were also put out of play. As soon as the accumulated property was able to contend for representation with the landed interest, the gamblers in pounds were able to achieve an amount of representation, which compelled their government to appoint them to the magistracy of the country; and thus, armed with the two edged sword, the power of capital to reduce wages, and the power of the magistrate to coerce into an acquiescence, they began to gamble for hundreds, and put the pounds out of play; until at length they have not only rendered all the real money in the world incapable of representing their stakes, but have gone to the extent of gambling for the produce of foreign states; Great Britain and Ireland being too narrow a field for gambling speculations.

We believe it was during the vice-regency of lord Townshend, in Ireland, that the demands of patronage by the Hutchinsons and Beresfords became so extravagant that the Viceroy, upon one occasion, observed—"I do believe that if the Hutchinsons and Beresfords got a gift of England and Ireland, they would want the Isle of Man for a potatoe garden." So it is precisely with our manufacturers. They have gambled for all at home. They have cheated until they have won all. They have placed it out of play by a non-consuming producing power; and now they ask for some higher stakes to represent their power of cheap production.

It may not be unimportant to shew the immediate effect that this progressive system of gambling is likely to have upon the parties engaged. Let us group them, and mark their progress. Suppose that a number of persons sit down at a gambling-table, to play for penny stakes. As long as the play is confined to those stakes, the penny will represent something, and have its value in the market. If the play is changed to shilling stakes, the pennies are put out of play, and out of the market; and he will be considered impertinent who offers to pay a shilling in pennies. The shilling then becomes valuable as it represents the stake played for. If, however, the gambling increases to pound stakes, the shillings are put out of play, and out of the market; and the man who attempts to stake twenty shillings would be laughed at. As the blood warms, and the

desire to speculate increases, the stakes increase with it, until at length they arrive at hundred pound stakes, when pounds are put out of play: and it not unfrequently occurs that the hundreds are put out of play by bonds, bills, I, O, U's., post obits, and mortgages, rendering what may be considered real money but an inadequate representation of the gambling speculation. Observe, then, the effect which those altered stakes will produce, as if by magic. As long as a penny represents a stake, it was of certain value; and four or five pennies would be looked at twice before they would be given, say to a messenger who brought a note. When the stakes increased to a shilling, however, the pennies would be freely given in handful, as they represented nothing, while passing importance would be attached to the shilling. And this, again, when put out of play, would be as freely given as the pennies were; and so on; each increase of the stakes rendering comparatively valueless those smaller amounts which were previously played for.

Now such precisely is the position of our present speculators in human labour. They have got more artificial power than would supply the world with produce; and, in the wildness of speculation, they have lost all thought of the land at home, so inadequate to represent the stakes they play for. If the system be not checked, no power on earth can much longer suppress that popular fury which, though long pent up, will in its rage destroy the whole system, leaving no trace of what is called England's greatness. Machinery has put manual labour out of play and rendered it comparatively valueless in the gambling market.

However, the book, the first practical book upon the subject, is now before the working classes: it has been written for the purpose of instructing them, and of producing a change which must be beneficial to all. In perusing it, they will take it as a whole, they will either reject or require satisfactory explanation upon points which they cannot understand, while I rest satisfied in the belief that even my errors, should they be ever so numerous, will lead to a further illustration of the subject. I shall perseveringly prosecute my labours until I am convinced of my ignorance or until I convince others of their ignorance. When I undertake a project, however great it may be, or however long the period it may require to be brought to maturity, I am not to be diverted from it; and as the convenient subdivision of the land for the support of all who wish to cultivate it has occupied more of my attention than any other subject, I shall continue to press it in one shape or other upon the consideration of all, until I, or those who may come after me, shall see my justification in the happy results which its *completion is sure to produce.*

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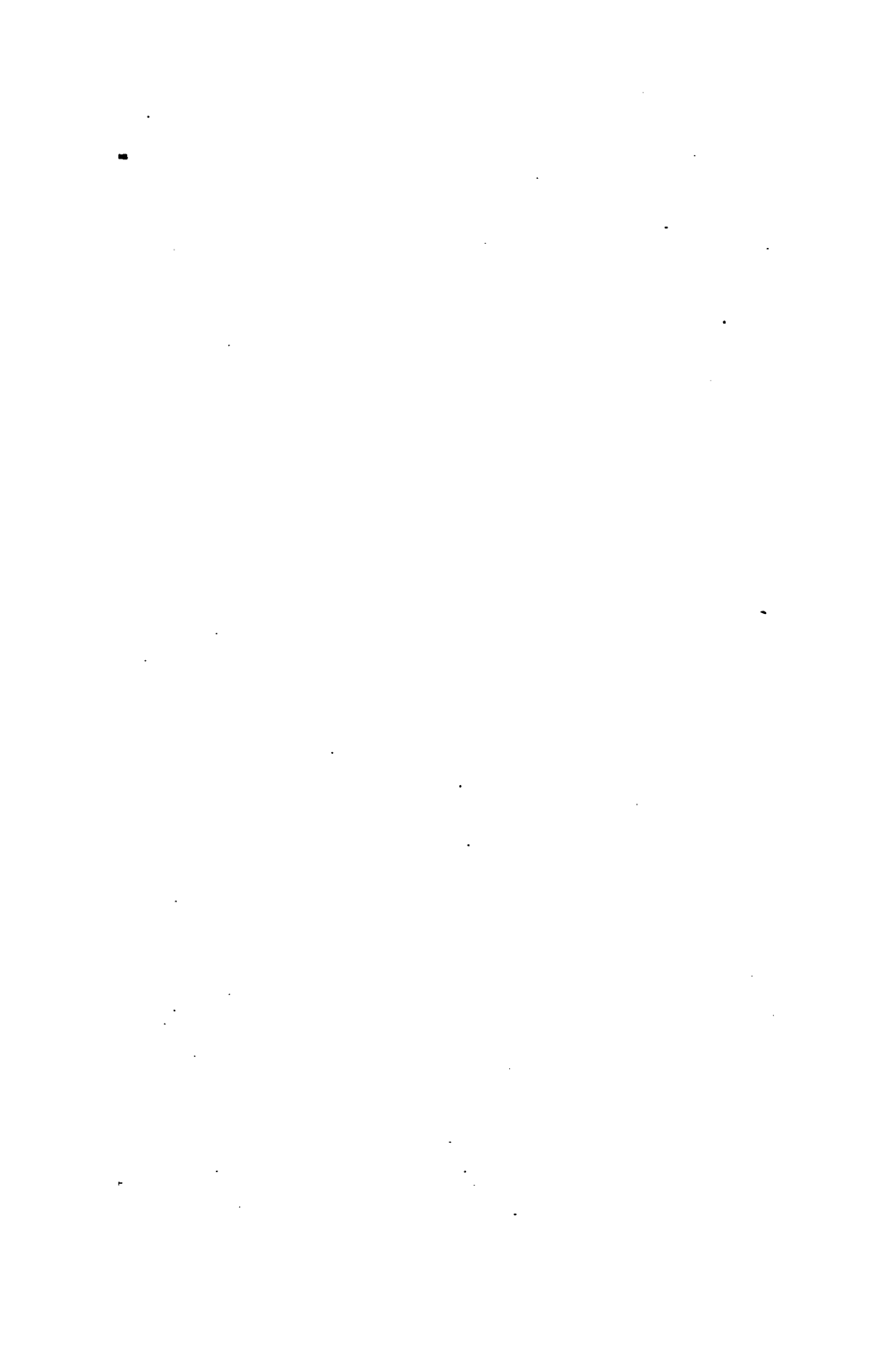
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